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## THE NEW ENGLAND ASSOCIATION OF COLLEGES AND PREPARATORY SCHOOLS

THE fifteenth annual meeting of the association was held in Huntington Hall, Massachusetts Institute of Technology, Boston, beginning on Friday afternoon, October 12, 1900, with President Charles W. Eliot, of Harvard University, in the chair.

### AFTERNOON SESSION

THE PRESIDENT: The association will please come to order. Is there any call for the reading of the record of the last meeting? If not, I shall hold that the reading is dispensed with.

My first duty is to appoint a committee to nominate officers for the ensuing year, this committee to report tomorrow morning at or near 9 o'clock. I name as this committee Dr. Robert P. Keep, of Norwich, Mr. Enoch C. Adams, of Newton, Dr. C. F. P. Bancroft, of Andover, Professor William T. Sedgwick, of Boston, Miss Ellen F. Pendleton, of Wellesley—three members of the former committee and two new members.

It is a special pleasure for me to introduce to this association President Pritchett, of the Institute of Technology, who will bid the association welcome to this place (applause).

PRESIDENT HENRY S. PRITCHETT: Mr. President, members of the association—I take your time but a moment to extend the greetings of the institute, to say that the members of the corporation and of the faculty desire to make you most welcome in this building, and to

extend to you whatsoever facilities the institute may have for your work. We feel the greatest interest in the work which the association is doing and in the effort that is making on your part to bring together those who are engaged in the higher work of education and those who are engaged in its beginnings, and we hope that whatever may be found here which will facilitate in any way your work will be freely used by you. I do not know how often you may have visited the institution, or whether you desire to visit it now, but I will say that any who may wish to visit the laboratories, or to see the other buildings of the institute, will be furnished on application at the secretary's office with a guide; and if you desire to see experiments of any particular sort, or to see tests in the testing laboratories, if you will signify to the secretary what sort of experiments you would like to have made, they will be prepared at your pleasure. I wish only to express, on the part of the Institute of Technology, the corporation, and the faculty, the fact that during the time of your stay here we hope that you will understand that the institute belongs to you (applause).

THE PRESIDENT: The secretary has an announcement to make to the association.

THE SECRETARY: I have a note from the secretary of the Technology Club extending to the members of the association, in behalf of the Technology Club, all the privileges of this club.

THE PRESIDENT: I am sure that the association will rejoice with me that at this meeting we are to listen to two new presidents of New England colleges. We welcome this afternoon President Faunce, of Brown; this evening we shall welcome President Hadley, of Yale. Both these gentlemen are to deal with themes of present interest and importance; with themes which have vivid practical applications at the present moment. I have the honor to introduce to you President Faunce.

THE TEACHER'S OPPORTUNITY OF DISCOVERING INDIVIDUAL  
CAPACITIES IN HIS PUPILS AND SO DIRECTING THEM TO  
APPROPRIATE CAREERS

PRESIDENT WILLIAM H. P. FAUNCE,  
Brown University

This subject is not of my choosing. It was given me by another. Its very phraseology is significant of the vast change

in educational standpoint that has come about in twenty-five years. "The teacher's opportunity to *discover* and *direct*." The function of the old-time pedagogue was so different that he must use another vocabulary. His business was to "inculcate," or stamp in with the heel; to "discipline," in the sense of punish; to "instruct," or pile up; to "educate," or draw out, often in the method of forceps rather than of sunshine. All these words and their associates involved the same venerable conception, that the pupil's mind was a passive somewhat, an inert mass of faculties, to be stamped or punished or piled up or pulled out into the shape desired by the schoolmaster.

All this was done systematically and thoroughly by the old education of which most of us are the products and victims. We can hardly think of the process without a strange mixture of gratitude and resentment. The stamping in and drawing out might be by birchen-rod, by forfeits, by rewards of merit, by the marking system; the inculcation might be by fear or shame or by anti-social competition; the discipline might be by the ingenious tortures of *Colburn's Mental Arithmetic*, or by memorizing long lists of dates called history; but the entire process was consistent with its fundamental assumption, that the pupil's mind is what the Greeks called *hule*, a formless, lifeless mass on which the teacher is to work, and out of which he is to produce the human being of desired pattern. The places where this process, as applied to girls, reached its most complete realization were called "finishing schools"—the most pathetic phrase in the history of education. Curiously enough, the old education, which thus treated the mind as purely passive material (a "sheet of white paper," in Locke's phrase) was ever insisting on the immaterial and spiritual nature of man's soul; while the new education, which treats the mind as essentially a living, spontaneous energy, uses a physiological nomenclature, and is constantly accused of materialism. But the real materialism is not that which uses a certain set of terms, but that which consistently treats the pupil as clay in the hands of the potter. In this sense our psychology lies at the base of all our education; not that the data derived from the laboratory can be

used in the class room, but that the way we think of the child determines all we do for the child. Think of the child as white paper, or clay, or wax, or wood to be graven by art and man's device, and we are materialists in education, talk we never so wisely about the immortal soul. Think of the child as a living, unfolding organism, a life to be developed, an energy whose potencies are to be discovered and directed—then no physiological nomenclature can hide the essentially spiritual nature of the educational process.

Here, then, is our fundamental conception: the pupil with whom we are to deal is a living, growing organism, and our first task is to become acquainted with him. The joy of discovery in nature is as nothing compared with the fascination of discovering the gleam of latent capacity in human nature. When studying the child, we may say in the deepest sense: "I think thy thoughts after thee, O God." Here in the child we have not a pillar to be carved by chisel and hammer, but a plant needing sunshine and air and nourishment, a plant to be discovered before it is directed, a plant that can be trained but was already pulsating with the powers of earth and sky before we touched it. The biological conception has displaced the mechanical. The pupil is much more mysterious than we dreamed; the educator's task far more difficult than we knew. But at the same time the task is far more attractive, and is even fascinating, since we are more immediately in the presence of the infinite than we thought, and we learn more than we teach. No man can teach children who is not constantly taught by them. We are continually amazed at the spontaneous overflow, at the restless activity, the ceaseless play of energy on the part of the pupil, and we find that all teaching begins in wonder. And this wonder soon passes into a sense of peculiar responsibility, as we realize that the mark we make upon a living organism is retained and built into the organism forever, while the mark we make on mere material may be changed or effaced. The dent made in iron or steel can be removed; the scar of solid shot on armor plate can be beaten out; but the mark of the tempest or sunshine on the tree is preserved in the innermost fiber, enlarged and intensified by the

lapse of time. The "hand that rounded Peter's dome" had slight responsibility compared with the hand that rounded Peter himself, or that left him forever unrounded and unbalanced; and to "groin the aisles of ancient Rome" is an easy task compared with the forming of the spirit of a generation of students. Hence, the teacher may go forth each morning steadied by responsibility and fascinated by his task.

How, then, can the teacher discover the powers in this living personality of the pupil?

1. First of all by varying the means of approach to the pupil's nature. This is the cause of the resentment which some of us feel in regard to our own education, because while we were approached insistently, we were approached in only one way. We were attacked through the alphabet and the multiplication table, later through words and names and dates, and if we did not respond to these time-honored stimuli, we were pronounced hopelessly stupid. Recently in Chicago I went into a practice school connected with the University of Chicago. I saw the children gathered round a teacher who was reading to them the poem of Hiawatha, and their eyes were wide with wonder. Then they went over into the Field Columbian Museum, and saw the materials of Indian life, the tents and the wampum, the feathers and the moccasins, and all the utensils of the Indian household. Then they returned and modeled in clay an Indian village, with Hiawatha at one end of it, and all over it the marks of the creative imagination.

I, too, learned Hiawatha, side by side with Mr. Colburn's ingenuities. I could spell the name of every tree in Hiawatha's forest, but would not have known one of them if I had seen it. I could pronounce the name of every beast on the American continent or in Noah's ark, but knew nothing about any one of them. I confess I enjoyed this verbal proficiency; but all around me were scholars who hated it, and hated the school that imposed it, and so were pronounced incurably stupid, although in after life they showed great constructive power. I might be taken as an average sample of the school product in the best schools of New England thirty years ago; and I am compelled

to say that for the first eighteen years of my life, not a teacher ever showed me a plant, or a tree, or a star, or a flower, or a fossil, or a living creature. The ideal of those best schools, under the shadow of Bunker Hill, was to sit up straight with folded arms, and affirm at the close of a day of word-study that we had not communicated once with any fellow-student! The triumph of the teacher was in "keeping order" among the scholars. She did not know that the growth of a plant is always disorderly from the standpoint of a crystal. She was living in the pre-biologic era, and we blame, not her, but her generation. Every possible means of approach to the child's mind may surely be tried. The city of Mansoul has more entrances than simply the eye-gate. Through eye and ear and touch and taste and smell, through blackboard and gift and game, through objects and through pictures and through models, through listening and through doing, through books and tools and friends, through isolated toil and coöperative action—through any way that finds the pupil and reveals him to himself and to his world—must we approach the citadel of the person.

The same thing, of course, is true in secondary education. Which of us has not seen a boy, who could not master grammatical forms and seemed hopelessly stolid, awakened to reality and interest by the use of a lathe and a plane? To make wooden boxes is not to be educated: but if through the making of boxes there can come power of concentration, discrimination, accuracy, love of truth, courage to surmount difficulty, persistence in effort and joy in achievement, then at least we may try this method on those whom we could not reach by conjugations or problems in percentage. If we have persistent faith in humanity—and without it teaching is drudgery—we shall know that there is somewhere a key to every soul, and we shall realize that the soul is trying to find its way out far more eagerly than we are trying to find the way in. Or, as Browning has put it:

To know  
Rather consists in the opening out a way  
Whence the imprisoned splendor may escape,  
Than in effecting entry for a light  
Supposed to be without.

This is the truth that Booker T. Washington is ever impressing on us; happily at last with visible results, with regard to the education of the negro race. Industrial education for the negro does not mean that we are going to give him an education of inferior kind. It means that we are going to give him something better than we have yet given to the white man, that we are to address not only his memory but his whole personality and give him opportunity to express himself not only in essay and sermon, but in all the myriad ways which the various aptitudes of his nature require.

The severest criticism that can be made on American colleges is that in spite of their noble history and lasting achievements, they have in the majority of cases failed to discover men. The college faculty have been constantly amazed at the postgraduate achievements of men in whom the faculty saw no sign of promise. "How could that man so develop after he left us?" they cry. Simply because actual life brought a set of stimuli which the college, with its one kind of approach, failed to supply. The college which has only one fixed curriculum is really a technical school, demanding high technical skill in a certain set of studies. Those studies may be the best in the world for educational purposes, but if they are few and fixed they are really making specialists, they are selecting and training the men susceptible to a particular kind of stimulus, and neglecting the others. But it ought not to be possible for a man to go through four years without being stirred and aroused at the center of his soul. If the college does not do it, it is because the college is only a segment of life, and its curriculum contains only a few notes in the gamut of reality. Why should not the college appeal to the love of beauty as well as to love of truth? But the Puritan college ignored the fine arts. Why should it not appeal to the executive faculty, to the power of action as well as the power of thought, to the will as well as to the logical faculty? Amiel's journal discloses a soul exquisitely cultivated on the side of literary art, but utterly unable to make decisions, to execute its purposes, or to grapple with life. This is mis-education. Why should not all schools, from kindergarten to university, appeal to

the constructive power—to the power to build and carve and plant, as well as to the power to think and talk about building, carving, and planting? If the feelings are the basis of the higher mental powers, as psychology is now asserting, what can we say of an education which ignores the emotional side of nature, except that it is narrow specialism? If some minds are awakened by contact with concrete objects, and not by the “verbal packing-case” in which the object is usually kept, what shall we say of the course of study which never introduces objects, except that it is technical instead of liberal? Professor John M. Coulter tells us that when Rafinesque, the first teacher who used the laboratory method west of the Alleghanies, ventured to bring plants into a recitation in botany, his procedure was strongly objected to by the rest of the faculty, as “tending to produce disorder among the students, and to convert a serious recitation into the mere examination of curiosities, thus wasting much valuable time.” Yet this spirit, essentially provincial and sectarian, was supposed to represent liberal culture.

But it is time for us to insert two *caveats*. First, we must not suppose that new methods of reaching the hidden capacity will enable us to do without the old methods. We are in constant danger of substituting for certain studies others which are by no means equivalent, studies which may make brilliant promise, but whose power is yet untested. One reason why Greek is a better means of developing intellect than botany is not that the humanities are better than the sciences, but that modern botany is forty years old, and Greek as an educator is four hundred years old. We know just what two years of Greek will do for a student reasonably responsive to that training. The method of teaching is defined, the authors read are usually the same, the drill in forms is established. But two years of botany depend almost entirely on the personal equation of the teacher and the laboratory facilities of the school, and no man can say how much development is implied. After four hundred years of science, we shall be able to speak more adequately on “what knowledge is of most worth.” And no lapse of time will ever enable us to do without the

studies which have educated the leaders of the last four centuries of history.

The other caution is this: No training is education which does not provide for honest struggle with difficulty on the part of the student. Life has many disagreeable tasks, and one great blessing conferred by the old education was the ability to do the irksome, the difficult, and even the repulsive, without whining or rebellion. When I recently said to a kindergartner, "What provision is there in your method for teaching the children to do the disagreeable tasks of after-life?" she answered: "None; there are no disagreeable tasks in life, to one who views it rightly." This transcendentalism is lofty indeed. But most of us thank our teachers that we learned in the days of narrow outlook and wearisome drill at least to possess courage in the face of obstacles, and patience under monotony, and resolution to rise after falling, and that something of the granite of the New England hills was in the training of the old New England teacher. We need not invent difficulties for pupils. But we need not hide their existence. Unless our pupils learn to "endure hardness as a good soldier," they are not prepared for real life. In pleading for variety of approach to the pupil, we are not praising the dictum of Rousseau that "duty and obligation should never be mentioned to a child," and we are not endorsing the soft pedagogics of our time, or the "flower-pot" education, which would shelter the child from the sterner facts of life. When we find Robert Louis Stevenson writing from his bed in Samoa: "To me the medicine-bottles on my chimney and the blood on my handkerchief are accidents; they do not color my view of life," we are reading the record of a soul that had been educated by more than games and toys, and had triumphed over care, and fear, and pain.

We shall never discover in our schools those pupils who are destined to be reformers, patriots, statesmen, leaders in moral enterprise, unless we sound the eternal note of duty, face unflinchingly the ethical facts of the universe, and in appealing to "interest" remember that the profoundest of all human interests is the interest in the triumph of righteousness in all the earth.

After all, it depends not so much on the method as on the teacher whether the pupil is really discovered and directed. A strong vitality in the teacher is the most powerful means of evoking vitality in the pupil. To be interested is always to be interesting. Some of the best teachers are not conscious of any method. They have always done by intuition what the books at last would teach us to do on principle. They are so thoroughly tingling with life, intellectual and moral, themselves that they impart life by contact. When a teacher has reached his dead-line, no pedagogy will help him. When the world is to him stale, flat, and unprofitable, he can never make it interesting to any students. But when he is throbbing with a passion for language, or science, or art, or history, or humanity, his passion is contagious, and virtue goes out of him unbidden. A strong intellectual life in the teacher is the most powerful known stimulus in the intellectual life of the pupil.

One other qualification of the teacher we must not forget—sympathy with the individual. Young minds turn toward intelligent sympathy as plants toward the light. In such an atmosphere they unfold and expand surprisingly. Ambitions repressed for years by criticism or rebuke suddenly come to the surface in the presence of a sympathetic teacher who is thinking not only of the class but of the individuals who make the class. Here is the greatest danger of our expanding colleges and universities. The individual is lost in the crowd, and the teacher is at a distance from the pupil. All libraries and laboratories are poor substitutes for the touch of soul on soul. Unless we can get it back again as once we had it, we shall be the victims of our own educational appliances. Tutors and instructors are well enough, but the great mature vital personality is the source of true education. This personal contact of teacher and pupil is the best thing a school can give. Socrates knew it, and, by his contact with a few, he lifted the world. The prophet from Nazareth knew it, and contented himself with personally training twelve men. We cannot select men and say, "You were born for this, and you for that," but we can so stir them with vision of their own possibility and opportunity in the world that every

aptitude divinely implanted shall find expression and growth, and our pupils shall succeed us in the endless progress of the world.

DISCUSSION

(Vice President Edward G. Coy, of the Hotchkiss School, presiding.)

THE VICE PRESIDENT: Ladies and gentlemen—The discussion of this paper will be opened by Mr. Augustine Jones, principal of the Friends' School of Providence.

MR. AUGUSTINE JONES: Fellow teachers—I find myself in a very peculiar place. I might have known that I should, before I started, but it is not the first time that persons have gone into things and afterwards have found that they were unfortunate. The only thing that I can fall back upon is an experience of many years in connection with boys and girls in the matter of education, and also my life as a pupil. It is a very difficult position to stand up here before men and women who have large experience and undertake to make suggestions to them which are utterly commonplace. Nevertheless I think, being called upon under these circumstances, it is a man's duty to testify to what he has seen and what he has felt, and to do whatever he can in aid of progress.

I am satisfied that in a way the teacher has greater opportunity than the parent. To be sure, there is a sense in which the parent has the advantage. I believe it was Voltaire who said, "Give me the first nine years of the child and Christians may have the rest." There is a certain power of bending the twig with them, which never comes to anybody later, but everybody knows that as we go on in life we crystallize. The exact time when a child comes to school is one when qualities are crystallizing and becoming more permanent and settled in character, and therefore then comes the greatest opportunity to do a lasting and permanent work. My life has been associated mostly with teaching in boarding-schools, where I have been with my pupils all the twenty-four hours, and have therefore had a work to do which is somewhat more extensive in the building of character, as I think, than some other classes of schools. There is no doubt that the most important thing is first to get at the heart and mind of a child, and to make that child feel the value of learning, and next to feel that he has possibilities of acquiring that learning to himself. You know that there is a

fellowship, or community in labor, and an interest or sympathy in it which nothing else is like. If you are working with a person night and day in one direction, you have a power over him greater in other directions than you can conceive.

I used to be greatly troubled with getting men to preach, for we have religious exercises and services not common to the public school. Now, the teachers who instruct in other things do much of it with power. We have all kinds of people, Catholics and Hebrews and others, and we have to meet everybody, and we have to stand back on the broad platitudes of the preaching at Jacob's well, and recognize essentially that "God is a spirit and they that worship him must worship him in spirit and in truth," or the keynote of what Mr. Whittier used to call the church universal. That is the thought which has to run through it. I perhaps am wrong and behind the age, but I believe that that sort of teaching is fundamental to moral life, that we must get some religious feeling into the hearts of children, without the narrowness and bigotry of sectarianism, something of that spirit must inspire them if we are going to control the moral life really and earnestly, and build them on eternal foundations. I only speak of that as one way of influencing. This is open to objection. The public school cannot meet this; in a way they are not able to do it. Nobody holds them responsible for it to this extent. But when parents come to us I say to everyone, "We will be faithful. We have no clan-nish spirit, no selfish religious purpose, but we are working on broad liberal grounds, and we will meet you fairly and sincerely. We do recognize that the first religious thought in early years, planted by the mother and father, is primal and fundamental, and that whoever shakes that takes the risk of creating infidelity or disturbing religious force and progress." That is the way we build in ethics, and I think that we get a strength, a foundation for moral work, which we could not secure otherwise. As President Faunce has told us here, I am more and more convinced, as I grow older, that we must regard these moral foundations, that in our own country, to pass off a little from the main thought, the peril which lies about us is lack of moral work. We feel it in the statesmen, we feel it in the legislative halls, and we find it everywhere in business; but public education must somehow, I think, reach this fundamental subject more thoroughly than it has. The weight is laid upon me more and more every year myself, and I stand up here to testify what I feel and what I experience rather than what I have thought in theory.

Now as to the general matter. I am glad the secretary told me I should have but ten minutes. I thought when Dr. Faunce was speaking that I only wanted three, but I shall say a few words more. As I have been looking the matter over, I always get the best information in the trying business of teaching, the best thoughts, by studying the thing as I have found it as a child in my own progress. If I want experience I go right back into what I have gone through, and I can almost always find something to help me out. In this influencing of boys and girls I have been greatly impressed with the power which we have over them. It has been given to us in a remarkable way, and I think every teacher feels that. But this matter of personal contact, this matter of personal association, this matter of personal confidence, is fundamental in it. The boy who has confidence in your learning, or the girl who has confidence in your integrity, faithfulness, and honor and all that, when you undertake to give them advice, as I said when I began, you have an immense power. I don't know how many hundreds of young men and women I have had come to me to talk about their future and their career, and how thoroughly I have tried to have those people gauged up or measured in character and attribute in my own mind. I have letters, correspondence, every week of every year upon these subjects, and I have to give advice and thought to them. I am glad to say that by living near and close to these people I have a power of telling them what I think and I hope sometimes giving them good direction.

I remember a young man whose father came to me many years ago, and he said, "My son is utterly worthless. I can't do anything with him. He won't work. He won't study. He won't do anything. He is bound to be idle and I can't help it." I said, "Send him to me." The boy came. He was nineteen years old. It was rather late, but I took him into my room and I said, "Look here, you know I think a great deal of you,"—and I meant what I said. "I think you have splendid ability. I think you can do almost anything you have a mind to do. I think you have the best opportunity to give a surprise to the community that you live in of any man in this world." He looked at me. I said, "You have reached pretty near the bottom. Your chances are growing less every day. There is only one thing for you to do, and that is to right about face and do your duty and be a man." We both sat silent. We had a sort of a quaker meeting. I said, "I want you to go into that Latin grammar class and lead it, and do your work, and I want to be the man to

proclaim what you have done when you have done it. I want to stand by you, and we will see if you and I together cannot accomplish it. I want you to lead it." He did lead it. He came out all right. When he was ready for college I said, "You are going to college now. I have not said much to you, but I am proud of you, and everybody else is getting so. When you enter that class in college do you lead it! Cut every bridge behind you and lead that class." Perhaps the doctor would not quite agree with me in this, but I meant what I said to him. And he did it. It won't do to go much farther; you know the man. One day Mr. Whittier wrote to me and he said, "They want a man so and so." I said, "There he is." They took him. He is one of the best paid teachers in this country and his name is known on both sides of the water, and I am afraid you will find out who he is. I did not make him, but, oh, I was in earnest with that fellow.

A mother came. I have been trying to think of a few of these instances. A mother came, and she threw her boy into the front door and said, "Take him, I have got done with him." I said, "John, come in here. If nobody else in the world cares for you I do. I am going to do something for you. Now stand up and you and I together will do this business." Today they are as proud of that man as they can be. He is a splendid business fellow. He is doing his duty.

Friend, these are not marvels; they are things that are in every teacher's experience. They only help illustrate what we are at.

Now just one thing more. I think there is danger with all of us who are teachers, of having too limited ideas. I think if we are going to guide people we ought to know a great deal. We ought to climb the mountain and take in the entire landscape. It is not only necessary to be splendid drill masters, splendid disciplinarians, and all these things, which are important, tremendously important, but we must be men of the world. We ought to know what law is, and what physic is, and what all the business of the world requires of men. To be sure, in my place I have not that same duty, perhaps, that a college president has, and yet in one way I have, because many students leave our door and have no more schooling. We send many into the colleges, but many leave at that point and go into the world, and they want the teacher as an everlasting friend, as a guide and assistant. Oh, I think that the magnificence of Dr. Arnold, and Dr. Edward Thwing, and all these men was in the closeness of life and love with which they associated and tied themselves to these men and made them. You say there is a great residuum of the school that must be moved in platoons and

regiments, that you cannot handle them as individuals. That is why schools, and the president has said colleges, ought not to be too large. There is a vast amount of labor that you can do in this way of individual influence. If, as a matter of fact, you cannot reach every one, you must reach the leaders, as Governor John A. Andrew said in his valedictory address about the South. He said, "It is of no use to talk about the average people in the South; we have got to communicate with the leaders, the natural leaders. They led her into the war; they only can lead her out." The leaders will always appear in school. They will always have their influence. You guide, as Dr. Arnold said in his school, by the old sixth form. Those persons, if they are inspired by you, if you have hypnotized them thoroughly, so to speak, with your spirit and your life, your influence will work through them and leaven the lump. It is a great thing to have the leaders right and to have them direct the school.

Ours is a noble profession. I am proud to have had an humble part in it; and I am also proud, ladies and gentlemen, to have been called before you to address you (applause).

#### EVENING SESSION

The association met at 7:30 P. M., President Eliot in the chair.

THE PRESIDENT: Ladies and gentlemen—We are to have the pleasure this evening of listening to the president of Yale University on a subject in which everyone of us has a keen and permanent interest. I present to you President Hadley.

#### CONFLICTING VIEWS REGARDING ENTRANCE EXAMINATIONS

PRESIDENT ARTHUR T. HADLEY,  
Yale University.

My best apology for contributing one more to the already over-numerous utterances on this theme is that what I have to say this evening is in some measure aside from most of the special aspects of its discussion, which have formed the field for so many educational battles. It does not touch upon the problem of extending or contracting the requirements for admission. It does not solve the question of separate examinations or common examining boards. It does not bear, except by indirection,

upon the conflict between the champions of certificates and examinations, which will form one of the prominent themes of tomorrow morning. It deals with a question which is in one sense wider than any of these—the question of the purpose for which entrance examinations have existed, and the different underlying ideas with which men have handled them. I am not without hope that the treatment of the subject from this standpoint will tend to clear up many of the misunderstandings which have at various times arisen, and, while it is too much to expect that it will help to a speedy agreement on matters where the views of different individuals are so divergent, I believe that it will at least help us in taking that first step toward agreement without which all discussion is profitless—that step which consists in arriving at a real understanding of the reasons for difference between one's self and his opponent.

In the very earliest stage of college examinations—which lasted, with some modifications, until about the middle of the present century—they were designed solely and simply to test the fitness of the student to go on with his class. They were quite generally oral. They were conducted by the various professors; in the case of advanced students, the president himself would not infrequently go over the whole ground in what was in parts more like a conversation than an examination. There were, indeed, certain studies on which the candidate was supposed to have prepared himself for these tests; but the whole matter was so informal that not only were equivalents for the prescribed studies accepted with the utmost readiness, but if the candidate showed a knowledge of the several subjects which seemed to fit him for class-room instruction, insistence upon any such equivalent was readily waived.

But as time went on this method of examination broke down by its own weight. With this passing of the day of small things, the opportunity for this close personal relation was no longer left in the examination hall. The oral inquiry gave place to the printed paper. The first effect of the substitution of this system of written examinations was a great increase in the amount of examining actually done. Under the old system the expert

professor, by a few well devised oral questions, could readily make up his mind as to the ability of the candidate before him. Under the new system such swift recognition of ability was impossible. Instead of varied inquiries, adapted to the needs of different candidates, the examiner was compelled make out a paper whose different parts should cover varying needs. In order to contain something for each man, it contained too much for any man. Nor was it enough to make longer papers in each subject. It became necessary to cover more subjects by an actual and serious examination; not because it was necessary to prove that the candidate knew everything which the papers contained, but because in this way, and in this way only, could the effect of good luck and bad luck be reduced to a minimum. A well-prepared student might by bad fortune fail on a small number of papers; it was less likely that he would fail on a large number.

If entrance examinations are to be regarded as a test of ability to go on with the work of the college, our present methods of handling them can only be defended on this theory. We are making a rough application of the doctrine of chance. We admit a student who is conditioned in arithmetic if he does well in algebra; not because a man who is defective in arithmetic can properly attend a college course, for the man who does not know at least the elements of arithmetic had better go back to school at once, but because we feel that the chance is that the arithmetic paper did not do the boy justice, and we wish to reduce the possibility of such error in the individual case to a minimum by giving him a chance on different papers with different examiners. But in point of fact, our authorities have, for the most part, ceased to treat entrance examinations as tests of ability to go on with college studies. They have become examinations on the extent of past work, rather than on the power for subsequent work.

Not that this matter is clearly avowed, or even understood. In fact, one of the things which most complicates the discussion of the whole examination problem, is that men so often oscillate between these two conceptions. An examination on extent of

past work has certain uses and should be handled by certain methods. An examination on power for future work has certain other uses and should be handled by certain other methods. Confusion between the two is likely to be productive of evil. For, when the entrance examination becomes a test of the extent of previous study rather than of degree of present ability, the character of its usefulness to the college changes totally. It no longer remains a means of securing well-prepared students to the institution, except in this indirect way: that by requiring the preparatory schools to handle a certain range of subjects and train their pupils to pass certain more or less well-devised examination papers on these subjects, good sources of supply of collegiate students are assured.

If an examination system does this, it on the whole does its work well. If, however, the system as at present conducted fails to do this, it imperatively requires modification.

The present system, in its effect on the preparatory schools, cannot be pronounced either a brilliant success or a glaring failure. That good schools have grown up under its influence, and that boys as a whole are better prepared for college now than they were twenty-five years ago, I think we can say without hesitation. But that the progress in this respect has been as great as in many other departments of our educational life I think is not certain; and it has been attended by a retrogression in some places where we should least expect this result. The increased attention to the study of English literature, for instance, which has been hailed with delight as a means of causing greater attention to be paid to the English language, has been accompanied by a certain amount of deterioration in the character of the English actually used by those entering college. Increase of extent in English study, under the present system, so far from having been accompanied by increase in power has been attended by its diminution. The new school curricula, in spite of many features which seem so much better than the old, leave a large number of the candidates worse prepared in a most essential respect in the most important of all tools for intellectual use.

I do not believe that this result is primarily due to any error in the construction of the English papers, or in the detail of the English entrance requirements. I do not believe that in other lines, where similar results have been observed, the fault rests mainly with the examiner, or with the course of study laid out. I am inclined to think rather that it rests with that whole system which would make the college examination a test of the extent of previous preparation.

Up to this point I might seem to be doing little more than to restate the arguments of the advocates of the certificate system. But there is an alternative which many of these advocates do not recognize. We are not restricted to the choice between examinations to test extent of knowledge, on the one hand, and admission by certificate, on the other. May not the examination be brought back nearer to its old function as a test of power? May we not have, in the place of a large number of examinations which are intended to test the range of the student's knowledge, a relatively small number of papers which test the ability of the student to perform the work which he is subsequently called upon to do; leaving to the certificate of the school, or to the determination of a general examining board in the case of candidates who do not come from accredited schools, the *prima facie* settlement of the question what range has been covered by the candidate's previous studies? Under a system of this kind the special examinations in each college might be made comparatively few—not more than one paper in each language, and perhaps two in mathematics. Those papers would not deal with subjects which could be crammed, but with those in which training was necessary and in which the results of training were decisive. They would be of such a character that the student who could pass these examinations successfully would be competent to go on with his future studies, even if the extent of his preparation was slightly deficient. But, on the other hand, they would be of such a character that the student who failed in any considerable number thereof ought, for his own good and for that of the college, to be prevented from going on, from probable lack of power to handle the studies of the class.

The adoption of this view would have the advantage of enabling the college to reduce its papers to a manageable number, and give greater care than is now available for a really thorough reading of their results. It would prevent the candidate from being as much hurried as he is under the existing system. It would allow the masters of the preparatory schools choice of methods in many of the most important subjects, whose teaching is now dominated by the necessity of cramming the student for a particular kind of examination. Above all things, it would tend to eliminate as a factor in success the results of such skillful cramming which now makes many an inferior boy produce a better showing than his fellows whose education for the work of college and the work of life has not been sacrificed to the exigencies of preparation for a momentary end.

The chief objections which occur to me as likely to be urged against the view may be stated as follows:

1. The attempt, which has been more than once made, to lay special stress on tests of power rather than on knowledge—for instance, sight reading of Latin and Greek authors, translation of English into Latin, etc.—has disappointed the expectation of its advocates.

2. In the inevitable uncertainty attending the results of entrance examinations—due partly to luck, partly to the personal equation of the examiner, and partly to the varying physical conditions of the candidates—the substitution of a small number of decisive examinations for the very great number now existing will cause some candidates to be unjustly rejected who under the present conditions atone for their deficiencies in some lines by indication of ability in others.

3. The necessary withdrawal from the examination scheme of subjects like history, descriptive botany, or parts of the English papers, will serve to give them an apparently inferior position, and will result in their neglect in those schools which desire to prove their success on the basis of the showing made by their candidates in college examinations.

Let us take up these points in order.

1. It is, I believe, true that the attempt to make excellence in sight translation a decisive test of knowledge of classical languages was attended with very considerable harm. But this harm was quite as likely to have been due to the defective understanding of methods of making the examination a test of power as to any inherent difficulty in the system itself. The old-fashioned Latin composition papers, made up by teachers who had been themselves trained in the school of Kerchever Arnold and *per me stat quominus*, were not really tests of power, but cram papers of a bad sort. The same thing may be said of most of the examinations in sight reading of classical authors. They were at best no test of the kind of power which is required by the student in his collegiate life. That student must learn to read classical authors with a dictionary, and he must have the accurate knowledge of the grammatical construction which is requisite to do this. But most sight papers depend far more upon the quick command of a vocabulary, in times when the candidate is specially nervous, than upon knowledge of linguistic structure. In the easy Latin or Greek which was generally given out on these papers, the candidate who can remember the vocabulary can guess at the structure far better than the candidate who knows the structure can extemporize the vocabulary. Nor can this difficulty in the sight paper be wholly avoided by notes which give the meaning of a few words; for those words which help one boy may prove useless to another. The partial failure of sight papers to accomplish their ends proves chiefly the defectiveness of the means, and little or nothing as to the unattainability of the end.

Of course it may freely be admitted that it would require great ability to carry out the proposed plan by right methods instead of wrong ones. It would perhaps be a number of years before we should know what furnished, on the whole, the best means of testing the student's power. But I feel quite confident that nothing which has hitherto been done indicates that the question could not be fairly well solved in a reasonable time.

2. The argument concerning the dangerous fewness of the papers under the proposed plan deserves careful consideration.

Anyone who knows the uncertainty attending the results of examinations in general, and of written examinations in particular, will be reluctant to reduce the variety of chances given to the student to prove in different kinds of papers his probable fitness for any course which he desires to undertake. Yet I believe that whatever dangers lie in this way would be balanced by the increased care of reading which the substitution of the few papers for the many would render possible; and that by giving to teachers of proved ability the opportunity to recommend, at the risk of their own reputation, for provisional admission to our freshman classes, pupils whose failure in several of these examinations under the new system would otherwise have kept them out, we should have a check which would, for obvious reasons, not be greatly liable to abuse, and which would protect nearly all the deserving students from the consequences of ill luck.

3. The objection on which most stress is likely to be laid by the teachers in schools is that of unfair discrimination between different studies. It is unquestionably true that where competition is keen—most noticeably, perhaps, in the case of New York City—the teachers desire to show their success as teachers by the success of their students in examination, and that if a line which they greatly desire to teach and are successful in teaching is omitted from the paper, they feel that they are unfairly handicapped in their efforts to do it justice. I do not deny that there is force in this objection; but I believe also that on those very lines the evil of the present system tends to outweigh the good. Suppose that a school has a teacher of special ability in interesting his pupil in the study of history. History examinations by the colleges give him an opportunity to display this ability. They also give him a temptation to misdirect it, in order to lay special emphasis on those questions which are likely to be asked. No construction of the history papers, however skillful, will wholly avoid this danger. It lies outside of human ability to devise a paper which shall test the candidate's power to use the results of history, in the way that any reasonably good paper in arithmetic can test his power to use the results of arithmetic. From what little observation I have been able to make, I am

convinced that the evil effect of the misdirection outweighs the good effect of the stimulus ; that the net effect of the examination, on the whole, is to make history be worse taught instead of better taught. And what is true of history holds true in but slightly less degree of a number of other subjects. It is proverbial that papers to test the extent of reading in English literature, and even the careful study which has been devoted thereto, are no test either of appreciation of literature or of knowledge of English. That the existence of these papers causes some attention to be paid to the study of English in schools is a good result, which I have no desire to depreciate ; but I cannot help emphasizing the evil effect in making that teaching deal more with the externals of literature, with its accidental surroundings, that have no bearing on the very heart of the matter, and in lessening by neglect that effect on power of English expression which is the most universal need of the student at the present day.

I have made these suggestions definite and concrete, not because I am sure of the excellence of any definite plan which could be laid down at the moment, but because of the importance of getting an idea put into concrete shape and clothed in tangible forms. Let me end by coming back to this underlying idea or theme in its more theoretical expression. Our colleges, under the exigencies of the situation, have gradually passed from a time when their examinations were a test of ability to handle the studies of a college course, to one where they are a test of the extent of previous study, and where, if they exist at all, their form is shaped by the needs of the schoolboy rather than of collegiate student. The studies on which the college examines for the school's sake are those in which the danger of cram is far greater than those on which it examines for its own sake. The evils of this state of things, in the multiplicity of examinations and the encouragement of doubtful methods of work, have made themselves obvious. Let us abandon the attempt to treat these questions as though entrance examinations and entrance requirements were synonymous. Let us cease to make the college examination primarily a means of influencing

the range of school work, and make it a test of its quality. In so doing we may for a moment deprive the teaching of certain subjects of an artificial stimulus which the advocates of the extension of those studies greatly desire; but I believe that such loss will be many times outweighed by the promotion of good teaching methods and good ideals in education as a whole.

#### DISCUSSION

THE PRESIDENT: President Hadley has drawn attention to the difference between examinations for quantity and examinations for power. It is the latter, the examination for power, which should be our ideal. That is what we want from candidates for university degrees, and what schoolmasters want from their graduates. Much has been done within the last twenty-five years to promote such examinations. The examinations in sight reading of the languages are tests of power. So are the laboratory examinations to which much attention has been paid within twenty-five years. Put a laboratory problem before the pupil and see if he can solve it with his memory and his eyes and fingers. Ask him to solve a geometrical problem which he has never seen before. These are tests of acquired power.

With regard to the range of subjects in which examinations are given, it must be confessed that it is enlarged. It is enlarging every day. Who is responsible for the enlargement? Have the colleges determined it, or the schools? To the best of my knowledge and belief, it is the schools and not the colleges. The independent secondary schools have introduced new subjects, enlarged the range of their efforts, and improved their methods, until the colleges have seen it to be their interest to recognize a larger range of studies than formerly as qualifying for admission to college.

With regard to the importance and merit of the examination system, opinion has changed within ten years. There was a time when examinations were looked upon as necessary evils; now they are regarded in the colleges and universities as absolutely good in themselves, though this is not so clearly seen in the schools. Examinations are the same kind of test that comes to mature

men every day. Here is a telegram of forty words to which a reply should be sent in ten. Here is a letter of a thousand words which should be answered in fifty. Every professional man is examined severely, every day of his life. He is forced to bring to the examination every idea, and all the skill, that he has. The surgeon is suddenly called upon to perform the operation for appendicitis; some men, indeed, twenty a week, and no two alike. In each operation every bit of his knowledge of the anatomy of those parts may be brought into play, and he works under stress of excitement and responsibility. The test is very much the same in kind as the sudden examination of a pupil at school, but fiercer. So with the lawyer; every case in court involves a cram and an examination. The trouble with school examinations is that it is difficult to offer children appropriate tests of their power. This is the point at which we have failed.

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The next item of business is the report of the committee to confer with the Commission of Colleges in New England on Admission Examinations. This report relates to admission to college by certificate and by examination. It will be presented by the chairman, Mr. Ramsay, of Fall River.

MR. CHARLES CORNELL RAMSAY, Principal of the B. M. C. Durfee High School, Fall River: Mr. President, ladies and gentlemen—I take pleasure in submitting to you at this time, as chairman of your Committee of Conference with the New England College Commission, our

#### REPORT ON ADMISSION TO COLLEGE ON CERTIFICATE AND BY EXAMINATION

Before your committee was assigned the duty of investigating and reporting on the two methods of admission to college now in use, it was doubtless believed that a difference of opinion on the subject existed among school and college teachers; and the results of our work, which later in this report I have summarized, clearly justify such a belief. The question is, therefore, a *debatable* one.

Allow me to call your attention, at the threshold of the subject, to

#### I. SOME GENERAL OBSERVATIONS

In the serious consideration of any important question, it is desirable—indeed, it is necessary—to find a fundamental basis upon which the discussion

may rest, and from which it may proceed. This is true, not only that the structure of argument may have a foundation, not only — moreover — because the problem can by such a method be more easily solved; but also, since — in matters fundamental and essential — men are pretty generally agreed. Those who dissent from one another often start from the same premises or assumptions, but reach different conclusions because they draw different inferences from the facts.

In the present instance, as in so many others, we must seek in the field of ideals the basis we need; and here let me remark upon the harmony or the similarity — not to say the identity — of the ideals of all persons of the same class. Particularly is this true of the ideals of educated men. As educators, our ideals or highest aims are very much alike; we differ chiefly in the means by which to attain them.

The principal ideal of every wise, worthy, and progressive headmaster is freedom — freedom to do or to attempt to do the best things in what he conceives to be the best ways. Such a headmaster regards the education of his pupils as his great aim and his chief responsibility; but he sees it broadly, as a many-sided, all-inclusive process. He feels that, intellectually, education is the growth and development of mental power through self-activity in a stimulating and soliciting environment. He knows that no exercise, no effort, no performance, has genuine or permanent educative value that is not accompanied by, or founded upon, interest. Freedom, spontaneity, interest — these are the characteristic or dominant notes in his ideal, intellectually, for his pupils and his school. He desires the priceless opportunity to enkindle in the minds of his pupils an insatiable thirst for knowledge, a fervent love of learning, a permanent and profound attachment to the intellectual life, which, as Philip Gilbert Hamerton truly says, consists not so much in extent of knowledge as in the constant preference of higher thoughts over lower thoughts. In contemplation of this aspect of his important work, the headmaster remembers the eloquent and forcible words of Plato, in which he describes the man of culture and of philosophic character:

A lover, not of a part of wisdom, but of the whole; who has a taste for every sort of knowledge, and is curious to learn, and is never satisfied; who has magnificence of mind, and is the spectator of all time and all existence; who is harmoniously constituted; of a well-proportioned and gracious mind, whose own nature will move spontaneously towards the true being of everything; who has a good memory and is quick to learn, noble, gracious, the friend of truth, justice, courage, and temperance (*Republic*, pp. 475-487; Jowett's translation).

Ethically, he regards his work as of supreme importance. At every step he feels that he must develop the idea of the right, and stimulate the undying love of righteousness in the minds and hearts of his pupils. He deeply feels his obligation to develop and strengthen in them a fine sense of honor, purity, self-respect, and unselfish regard for the rights and feelings of others. He would found truth upon the love of truth, and establish the intellect upon the

heart; and so labor that day by day "more and more shall respect to reverence grow."

Nor will he neglect the important culture in his pupils of the sense of beauty in nature, art, and human life and conduct. Under his influence and guidance they will grow into a nice appreciation of the excellence and service to man of all the nobler arts of expression, and come to hate the tawdry, vulgar, and commonplace. They will be led to see that true beauty is not only the garment, but also of the very substance of truth; and they will be led to feel, moreover, that beauty and goodness are so absolutely one that the acme of esthetic taste and attainment is "the beauty of holiness."

From his acquaintance with the facts and principles of sociology, economics, and political science, the worthy headmaster conceives his just functions in terms much broader than mere pedagogic performance. He recognizes, as expressed by Commissioner W. T. Harris, in the report of the Committee of Fifteen, that

The requirement of the civilization into which the child is born, as determining, not only what he shall study in school, but what habits and customs he shall be taught in the family before the school age arrives; as well as that he shall acquire a skilled acquaintance with some one of a definite series of trades, professions, or vocations in the years that follow school; and, furthermore, that this question of the relation of the pupil to his civilization determines what political duties he shall assume and what religious faith or spiritual aspirations he shall adopt for the conduct of his life.

He will, therefore, desire not only the freedom, but also the stimulation from all influences affecting his administration, so to arrange the program of studies in his school that every pupil shall be prepared to fill the niche in life for which he by nature was designed. He would so wisely teach that his pupils' aptitudes shall be strongly developed to the end that they shall not only not make shipwreck of their lives, but rather shall do their full share of the world's great work.

But the worthy headmaster — although he is specially charged with the responsibility, from which he cannot escape, of looking out for the welfare of the secondary school — is also deeply interested in what precedes and what follows this period. He appreciates the solidarity of education; he is concerned about the final product, the ultimate success, of the whole educational course. His aim is the highest service of society; and hence he is anxious to place in the hands of the college instructor the best material for the work of the latter. He desires to prevent all possible waste in education, which — after all — is but a waste of human life, and therefore he wishes to send up to the college and the university men who are thoroughly prepared to profit by the splendid opportunities that will there be offered them.

Having thus briefly surveyed the field of our ideals, and expressed in inadequate terms what is to us trite and familiar, it is perhaps scarcely necessary for me to say that — to test the worth or worthlessness of every part of our present school machinery and of every proposed alteration or addition to

the same—we must first subject it to measurement by our ideal standards. Whatever bears such a test—that is, whatever will help us to approximate the realization of our ideal aims—we regard as good, and we think worthy of our approval and adoption.

Does admission to college on certificate from the secondary school bear this test? Does admission to college by examination by the college authorities bear this test? Do both, or neither, bear it? Such are the important questions we are set to consider at this hour.

In endeavoring to answer these questions the wise headmaster remembers that he is bringing into conjunction the real and the ideal, the inner world of reality and the outer world of practical life. At once he recognizes in the latter the imperfection of human nature, and the defects of the best-laid plans—plans whose purpose may be, like the tower of Babel, to reach even to heaven itself. He soon comes upon the realm of expediency, wherein he often discovers that even some evils, or inadequate or unsatisfactory means, are necessary until greater wisdom shall reveal a better way; and that of several evils he must choose the least.

Such may be the truth regarding admission to college, both on certificate and by examination. Not all headmasters are wise, worthy, and progressive; and, even in case of those who are, their assistants are not always so; or, when both are, the school authorities or patrons of the school are sometimes selfish and exert a powerful influence to compass undesirable or unworthy ends. Parenthetically, let me here say that a headmaster may consistently follow the rule to certify for college only those of his pupils who have attained a rank above a certain point in his scale of marks; and thus, treating all alike, seek to do justice to each, while trying to send properly prepared candidates to college. My own rules are as follows: (1) The candidate must have taken the work prescribed for admission to the college of his choice; (2) he must have done in my own school, during term time, the work for which he seeks my certificate; and (3) he must have attained in such work a grade of A or B in a scale of marks, A, B, C, D; D being failure. But such rules, however impartially followed, do not remedy all the defects of admission to college on certificate.

At first glance, the method of admission on certificate seems to be in harmony with our ideal aims, and therefore satisfactory. It seems to permit and encourage freedom, spontaneity, and interest, and to give the school its true function, that of education rather than of mere instruction, the development of mental power, moral character, and elevated tastes rather than the imparting of fixed quantities of knowledge; and, under more ideal conditions, such would be really the fact. But, in practice, this is often far from the truth. Not infrequently certified candidates for college, who are not well prepared, are admitted; and, although theoretically all students admitted on certificate are on probation for a period after entrance, we hear of few who are dropped from the roll for inadequate preparatory work. Human nature

being what it is, teachers and pupils in general (there are exceptions) really need a stimulus from external sources to overcome sluggishness and self-satisfaction, to say nothing of the loss through the certificate system of the enrichment and strengthening of both methods of teaching and courses of study that might result from a wise examination system in which a good college could exert a more direct and more effective influence on the schools. On the relation of the teachers of a school to the question at issue, the headmaster of a well-known academy wrote me as follows:

The preparatory schools cannot do without the drastic stimulus of an entrance examination to college. Masters are lazy—some lazier than others, but lazy. The colleges may talk until Time grows gray, but they (the masters) will not act with vigor unless they see the grim necessity right before them of working daily six days each week, to enable boys to enter college with credit. Given the college and anxious parents to apply the spur, and most masters will "come to time."

As in Christian ethics we have for a considerable time placed more emphasis on the hedonistic than upon the Stoical element, upon the desire to be happy than upon the power to endure hardness, so, in education, we have been laying more stress upon the pleasurable conditions affecting the pupil than upon his training to fight the battles and meet the crises of life. This statement marks my transition from the consideration of the certificate system to the consideration of the examination system of admission to college. There are those who affirm that it is much easier to impart knowledge and inspire intellectual enthusiasm (perhaps they mean "to try to do these things") than to test the pupil to determine whether he has received it. Although I do not grant this to be true, yet I concede that all judgments of others are intrinsically difficult. To determine mental power as well as the possession of knowledge is no easy matter. Indeed, when one considers that justice here is supremely important, he must admit the grave responsibility of passing judgment on anyone, including his pupils. Merit, ability, effort, moral worth, are sometimes elusive qualities; and it must be freely admitted that examinations of any sort do not always discover their presence or absence. But, with slight modifications hereinafter to be mentioned, I can but think the college-admission examinations are the best known method of reaching, if not a satisfactory conclusion, then at least the best "working hypothesis" regarding the fitness of the candidate for entrance.

On the question of the action of college-admission examinations upon the candidates for college, let me quote again from the letter from which I have already read an extract:

I fail to understand why a boy, properly fitted, dreads a college-entrance examination, unless he belongs to that small class of nervous boys who should be exempt from such a strain. On the other hand, a boy should learn to welcome the examination test just as he welcomes a match game of football, after weeks of football practice. Previously, he has had hundreds of written tests, scores in each subject, presumably given by clever teachers. Why should one more daunt him? In my

experience, boys who belong in college care little for entrance examinations. They expect to pass them; they do pass them. As for the weaklings who can't pass them because of alleged nervousness, they do not belong in college. They should turn their attention to business, or go to work and fit themselves for college. The idea that a boy cannot tell what he knows is arrant nonsense.

In passing, it is interesting to compare the apparently conflicting opinions on the subject of two college instructors. Professor J. M. Coulter, of the University of Chicago, says:

To compel schools to differentiate early a small and select and expensive class for entrance to the universities is unfair both to the school and to the university, and seriously checks the diffusion of higher education. To deny the privilege of breathing the university atmosphere to any product of a good secondary school involves such a narrow conception of education that one dislikes to associate it with the university. It has always seemed an anomaly that universities are inclined rather to rate themselves upon the basis of their raw material than their finished product. A fine-meshed screen is set up at the beginning of the university career, when it would seem far more logical to set it up at the other end.

Professor W. M. Warren, of Boston University, writes:

None of us wish the truth to be sealed away from any searcher, no matter how humble or how unintelligent; but it seems to me better on the whole that there should be places where minds of superior endowment should have a chance to come at the truth and to gain skill in finding it without hindrance from those who are relatively incompetent. The conception of a college as a public fountain, where an impersonal truth flows for all without respect to present condition of servitude, and where each is welcome to partake in the measure of his particular capacity, no matter how limited, appeals to the democratic spirit in us; but it overlooks the fact that deep drinking is no easy matter when the spring is roiled with a press of pint cups. The college is not the only place where truth can be learned and the intellectual habit acquired; for my part, I should gladly see it kept for the capable.

I have said that these two opinions were only apparently conflicting; for, surely, Professor Coulter could not have intended to advocate the admission to college of poorly prepared, imperfectly trained, or mentally inferior students. He was doubtless speaking of the narrow, traditional list of entrance subjects which effectually debar able students from some colleges. Probably he would approve the sound views of Professor Warren.

## II. RESULTS OF LETTERS OF INQUIRY

With the approval of the other members of my committee, I sent out a list of questions to the headmasters of thirty-six secondary schools, selected as typical of the whole class of preparatory schools. In this selection, care was taken that the answers should come from gentlemen whose wisdom and experience qualified them to express opinions entitled to careful consideration. Sufficient funds for a wider investigation were not placed at our disposal, nor did we deem such necessary. Another list I sent to the chairmen of the committees on admission of seventeen colleges in New England

and the middle states. Of the thirty-six schools addressed, answers were received from all; but of these only twenty-nine were so framed as to be of use. All the colleges addressed responded to at least a part of my questions. As instructors in schools and colleges are closer to the individual student than the heads of these institutions, I deemed it advisable to send the questions to the teachers of a particular school and of a particular college. To the questions and answers I now invite your attention.

RETURNS FROM TWENTY-NINE SECONDARY SCHOOLS

Admission to college by *examination* or by *certificate*—which? (Please answer, if possible, in the space below each question.)

1. What have you observed among your pupils preparing for college by *examination*, as compared with your candidates for admission by *certificate* in the following particulars?
  - a) Do the former apply themselves more faithfully and continuously from day to day and from month to month than the latter?
 

Yes, 14. No, 7. Doubtful, 2. No answer, 6.

Or do the former "cram" for some weeks prior to their prospective examinations, while doing little continuous work at other times?

Yes, 7. No, 12. Doubtful, 4. No answer, 6.
  - b) How do your *examination* candidates compare with your *certificate* candidates as regards mental ability and physical health and strength?
 

Examination better, 8. Certificate better, 1. No difference, 12. No answer, 8.
  - c) Do you feel free to *educate* the latter, while only instructing the former group?
 

Yes, 9. No, 5. Educate both, 10. No answer, 5.
2. a) Do college-admission examinations tend to enrich and strengthen the curricula of secondary schools?
 

Yes, 11. No, 9. Doubtful, 3. No answer, 6.

Ditto for admission by certificate?

Yes, 4. No, 8. Doubtful, 4. No answer, 13.

- b) Do they tend to secure more scholarly and more thorough and skillful teachers?
 

Yes, 15. No, 6. Doubtful, 1. No answer, 7.

Ditto for admission by certificate?

Yes, 4. No, 5. Doubtful, 11. No answer, 9.

- c) Do they tend to raise the standard of scholarship and the desire for knowledge among your pupils?
 

Yes, 13. No, 4. Doubtful, 2. No answer, 10.

Ditto for admission by certificate?

Yes, 3. No, 3. Doubtful, 12. No answer, 11.

- d) Do they tend to enkindle laudable ambition among your pupils for the higher education and for more liberal culture?
 

Yes, 9. No, 6. Doubtful, 4. No answer, 10.

Ditto for admission by certificate?

Yes, 6. No, 2. Doubtful, 10. No answer, 11.
- 3. By which method do you think that the colleges obtain the best intellectual and moral product from the schools as members of their especial freshman classes?
 

By examination, 17. By certificate, 5. Doubtful, 3. No answer, 4.

4. Do you think it in general wise for the colleges to vest with the headmaster and his assistants the responsibility for determining the fitness of pupils to enter college?

Yes, 13. No, 13. Doubtful, 1. No answer, 2.

5. Do you regard the influence of college-admission examination as, on the whole, beneficial or pernicious?

Beneficial, 20. Pernicious, 6. Doubtful, 2. No answer, 1.

6. All things considered, which method of admission to college would you vote to retain, and which to abolish, if the matter were left to the suffrages of school-masters?

Retain examination, 19. Retain certificate, 7. Retain both, 3.

#### COLLEGE PREPARATORY TEACHERS OF A PUBLIC HIGH SCHOOL

Admission to college by *examination* or by *certificate*—which? (Please answer, if possible, in the space below each question).

1. What have you observed among your pupils preparing for college by *examination* as compared with your candidates for admission by *certificate* in the following particulars?

- a) Do the former apply themselves more faithfully and continuously from day to day and from month to month than the latter?

Yes, none. No, 4. No difference, 3.

Or do the former "cram" for some weeks prior to their prospective examinations, while doing little continuous work at other times?

Yes, 3. No, 2. No difference, 1. No answer, 1.

- b) How do your *examination* candidates compare with your *certificate* candidates as regards mental ability and physical health and strength?

Examination better, 1. Certificate better, none. No difference, 2. No answer, 4.

- c) Do you feel free to *educate* the latter, while only instructing the former group?

Yes, 4. No, 1. No difference, 1. No answer, 1.

2. a) Do college admission examinations tend to enrich and strengthen the curricula of secondary schools?

Yes, 3. No, 3. No difference, 1.

Ditto for admission by certificate?

Yes, 3. No, 3. No difference, 1.

- b) Do they tend to secure more scholarly and more thorough and skillful teachers?

Yes, 3. No, 3. No answer, 1.

Ditto for admission by certificate?

Yes, 3. No, 2. No answer, 2.

- c) Do they tend to raise the standard of scholarship and the desire for knowledge among your pupils?

Yes, 3. No, 4.

Ditto for admission by certificate?

Yes, 3. No, 2. No answer, 2.

- d) Do they tend to enkindle laudable ambition among your pupils for the higher education and for more liberal culture?

Yes, none. No, 4. No answer, 3.

Ditto for admission by certificate?

Yes, 2. No, 2. No answer, 3.

3. By which method do you think that the colleges obtain the best intellectual and moral product from the schools as members of their respective freshmen classes?

Examination, 2. Certificate, 3. Both methods, 1. No answer, 1.

4. Do you think it in general wise for the colleges to vest with the headmaster and his assistants the responsibility for determining the fitness of pupils to enter college?

Yes, 4. No, 3.

5. Do you regard the influence of college-admission examination as, on the whole, beneficial or pernicious?

Beneficial, 2. Pernicious, 2. Doubtful, 2. No answer, 1.

6. All things considered, which method of admission to college would you vote to retain, and which to abolish, if the matter were left to the suffrages of schoolmasters?

Abolish certificate, 2. Abolish examinations, 2. Abolish neither, 3.

#### RETURNS FROM SEVENTEEN COLLEGES

Admission to college by *examination* or by *certificate*—which? (Please answer, if possible, in the space below each question.)

1. As students after entrance, how do those admitted by *examination* compare with those admitted by *certificate* in the following particulars:

- a) In scholarship?

Examination better, 2.<sup>1</sup> Certificate better, 6. No difference, 3. No answer, 9.

- b) In general mental ability?

Examination better, 1. Certificate better, 5. No difference, 4. No answer, 7.

- c) In moral character and application to their studies and the general performance of college duties?

Examination better, 1. Certificate better, 3. No difference, 6. No answer, 7.

2. By which of the two methods do you think that you obtain the best product, from year to year, as members of your freshmen classes?

By examination, 3. By certificate, 6. No difference, 3. No answer, 5.

3. Do you favor the abolition of either method of admission to college? If so, why?

Abolish examinations, none. Abolish certificate, 5. Abolish neither, 12.

#### RETURNS FROM CERTAIN PROFESSORS IN ONE COLLEGE

Admission to college by *examination* or by *certificate*—which? (Please answer, if possible, in the space below each question.)

1. As students after entrance, how do those admitted by *examination* compare with those admitted by *certificate* in the following particulars:

- a) In scholarship?

Better by examination, 2. Better on certificate, none. Certificate satisfactory, 2.

- b) In general mental ability?

- c) In moral character and application to their studies and the general performance of college duties?

<sup>1</sup>U. of P. admits candidates for admission from public schools upon satisfactory record of scholarship and work done, but examines all applicants from private schools.

2. By which of the two methods do you think that you obtain the best product, from year to year, as members of your freshmen classes?

By examination, 2. By certificate, none. No difference, 2.

3. Do you favor the abolition of either method of admission to college? If so, which, and why?

Abolish examinations, none. Abolish certificates, 1. Retain both, 3.

In general these questions did not bring out very definite or very useful information, for this reason: When a college admits on certificate, all but the very poorest pupils in the schools from which certificates are accepted will present the certificate. There remain to be examined, therefore, the refuse of those schools and the young men who have presumably been trained at poorer schools, consequently, at every college which admits on certificate, a large majority of the men who excel in scholarship, general mental ability, moral character, and application to their studies, have come in on certificate. In other words, such colleges do not possess sufficient and proper data to make a just comparison between the two methods of admission. The chairmen of the committees on admission of the best colleges accepting certificates have, however, written me frankly—though speaking for themselves, but not without support from several of their colleges—that they would give up the certificate system provided other colleges would agree to do the same.

### III. CONFERENCE WITH THE NEW ENGLAND COLLEGE COMMISSION

The Commission of Colleges in New England on Admission Examinations courteously gave your committee a hearing at its annual meeting at Boston University, April 28, 1900. As the proceedings of that meeting are now printed, and obtainable from the secretary, Professor W. C. Poland, of Brown University, I will not detain you to give you a report of it. It should be said, however, that after the commission had listened to our remarks and recommendations, they confined their deliberations, not to the abolition of the certificate system, but to various methods of better administering it. It does not appear that the commission, as a whole, favors examinations as the exclusive method of admission to college.

### IV. OBJECTIONS TO THE CERTIFICATE SYSTEM

It is doubtless already clear to you that I do not favor the certificate system as at present used; and, in this opinion, I represent the other members of your committee. The objections to the system were so admirably stated by President Eliot, in his answer to the letter of inquiry, that I quote them:

1. The certificate method diminishes the influence of colleges on secondary schools; and, particularly, it deprives colleges of the means of influencing the programs of study and the methods of teaching in the secondary schools. That influence has been in the past a valuable one.

2. It deprives the public of the best means of learning the comparative merits or value of different secondary schools.

3. It deprives a good secondary school of the best existing means of demonstrating that it is good, or that it is better than its neighbors.

4. It subjects the headmasters of some public and private schools to a strain which the colleges or the community has no right to put upon them; since the headmasters of some schools are almost forced to give certificates to pupils whom they know not to deserve them. From this point of view, the method seems to me very enfeebling as to both discipline and scholarship.

To the above I add another:

5. The colleges ought not to vest in the headmaster or his assistants the power to determine who shall enter their freshman classes, but should retain it in their own hands.

No grammar-school principal or teachers should be given the power to say who should enter a high school. The principal of a high school and his assistants should determine the fitness of all applicants for admission; but, in such determination, they should of course take into consideration the prior school history of each candidate; and such a history should be furnished by the principals of the grammar schools. Precisely so do I conceive the relations of the preparatory schools and the colleges.

Whether justly or unjustly, some of the colleges admitting students on certificate have incurred the criticism of seeking mere numbers, of emphasizing quantity more than quality, of "worshiping the golden calf." In so far as such an idea has gained lodgment in the public mind, the cause of the higher education in general, and the reputation of those colleges in particular, have suffered. As every true friend of culture is jealous for the leadership of the colleges in education, science, literature, and the liberal arts, such degradation in public esteem is a matter for sincere regret. While the examination method may be so loosely used as to lead to the same result, certainly it gives the colleges far greater control over their own standards than does the certificate method of admission; for, although in theory those admitted on certificate are on probation for one term and their school is on probation all the time, few candidates are ever remanded or their schools condemned.

#### V. FINAL CONSIDERATIONS AND RECOMMENDATIONS

Although the analogy may not in all respects hold, I think that we may—in the consideration of this subject—learn a lesson from the experience of the professions of law and medicine. I have been told by members of state boards of bar and medical examiners that the vastly higher standards of preparation and the far more efficient practice of these professions are due very largely to the increasingly rigid examinations now established by law for all applicants for admission to practice, which displaced the old system of certificates from preceptors. It must be said, however, and said with emphasis, that the superiority of the examination over the certificate method of admission to college depends upon the wisdom with which it is administered. Narrow prescriptions of certain text-books (as at Wellesley College) and a certain number of pages of texts, as at several colleges, are

pernicious in their influence on the schools. Likewise are all admission examinations that test scarcely more than memory in preparation of assigned work. College-admission examinations should test powers of thought and demand its accurate expression. They should offer optionals and encourage extra or additional liberalizing reading and study; thus they will strengthen the school curricula and infuse enthusiasm for learning and desire for culture and the scholarly spirit among pupils. When the graduates of other colleges who are here present have written me so strongly in praise of the character and influence of the Harvard admission examinations, I know that you will permit a Harvard man to say that in his judgment they have in the past twenty-five years greatly advanced the cause of secondary education in the United States. This they have done because of the amount of conscientious and intelligent thought that has been put into them, and the ability and impartiality with which Harvard has in general administered the system. She has greatly increased their influence for good of late by offering examinations in a wider range of subjects and by the issue of descriptive pamphlets in each department, relating to the topics to be studied and the methods of presentation by the teacher.

I am not, however, satisfied with the examination as carried out even by Harvard. To it I would add a sort of certificate—not to take the place of, but to be combined with, the method of admission by examination; to be combined with it not by any fixed rule—certainly no rule of the schools—but at the discretion of the college in every individual case. Such a certificate should be required for every candidate and should state, over the headmaster's signature, the pupil's work every year in each branch, and the mark he obtained at the end of the year, with the name of the teacher who gave him the mark. It should also state whether or not he is a graduate of the school, and should be accompanied by, or should contain, an account of the candidate himself in relation, not to scholarship, but to health, character, and general tendencies. Such a certificate should prove highly useful to college authorities in the settlement of doubtful cases at the examination or in dealing with alleged cases of special nervousness at the examination; and it should be serviceable even in the case of those who have successfully passed the entrance examination. This certificate should state *facts*, and not opinions, such as the headmaster's belief that the candidate is prepared for college; for while he may have very intelligent convictions on this point, the history of the candidate is quite sufficient for all purposes when united with the admission examinations.

In the foregoing report I have, no doubt, presented matter that has often before been threshed out by the older members of this association; yet I deem it worth while to have brought it before you if for no other purpose than as a protest against the present system of admission to college on certificate.

## DISCUSSION

THE PRESIDENT : Is it the pleasure of the meeting to consider the report which has now been read to you ? It relates, as the chairman of the committee said, to a subject which is certainly debatable. The statistics given us in the course of this report show how greatly opinion is, on the one hand, divided, and on the other, indeterminate. This is a meeting of men and women who have large experience with this question. Is it the desire of the meeting to devote some moderate time to a discussion of this report ? We are punctual with our business and can afford, at the pleasure of the meeting, to devote say half an hour to a further discussion of this subject.

DR. WILLIAM F. BRADBURY, of the Cambridge Latin School : Mr. President—Just one thing simply. Many things might be said. I can say that I agree most thoroughly with almost everything that has been said. There is just one little point that I wish to speak of, where it seems to me the certificate system would have failed to do justice. It is something that happened this summer. I had a class in college algebra. There was a young lady in it taking a post-graduate course in the Latin school, who did splendid work in college algebra. Nothing could be better than the work she did. I had a boy, too, who did wretched work in it ; he did not seem to know anything about it. Both of them had written very many algebra examination papers in the school. The boy had received very often zero on his paper ; I think the highest was 50 per cent., but it was usually 20 or less. The young lady had received from 90 to 100 every time. Before going to the examination I said to the young man, "You don't want to try this paper at Harvard. You will surely fail. Just as well give it up now. It is of no use for you to try it." When the report came from the college the girl had received "C" and the boy "B," and so an honor. Well, it astonished me. I thought there must be some mistake. I wrote to Radcliffe and to Harvard, saying there must be some mistake in each of these cases. I received word back that the papers had been looked over again in the case of both and the report was correct, but both wrote to me that I could see the papers. I took occasion to look carefully over the paper of the young man. I have not yet seen the paper at Radcliffe, but I am going to. I went up to the college, and the young man's papers were handed to me. I copied the paper very

carefully and carried it home. I have it exactly as the boy wrote it. I was gratified to find that the paper had been very carefully looked over by the board. Almost every question was marked three times. A mark had been given and then had been scratched out with a blue pencil, another mark, a different one, given and then scratched out, and a third mark which was left, showing that either three different persons had looked the questions over or one had looked them over a second and a third time very carefully and changed his mind. The sum total, too, had been added, added again, and added again, and the final mark left. I should not have certified that boy in college algebra. I felt sure he could not pass; but I think the mark on the paper was exactly right. Here was an example where a boy had done something on examination and had done nothing before. I can account for it quite easily; that he had worked up to the last, gradually growing up to it. I had been over every paper with him very carefully and shown him where his trouble was, and at last he went and got an honor, and the college marked him right (applause).

PROFESSOR W. C. POLAND, of Brown University: Mr. President—As having a connection with the commission, and as a member of the committee appointed by the commission to investigate the question of the best method of administration of the certificate system, I feel greatly interested in this discussion. There may be some need of clearing our ideas as to what is the basis of the certificate for admission. It is possible that there is not an entire clarity of view as to what is the underlying theory, or what ought to be the underlying theory, of a certificate presented by a pupil for admission to college, on which certificate, practically, the pupil is to be admitted in lieu of an examination. Really there are two theories that seem to emerge in the consideration of this question. It is generally assumed, I think, that the teacher is the final arbiter as to the fitness of the pupil for admission to college in all cases where a certificate is presented; but there is room for a question whether that is inevitably the case. I think that in all discussions that I have ever heard—I have heard a number on the subject and I myself have participated in some—it is generally assumed that that is the theory that underlies the certificate. In considering the administration of the certificate question we ought to answer clearly some such question as this: "What is the proper basis of a certificate for admission to college? Is it in the theory that the preparatory teacher is the person best qualified to decide as to the fitness of

a pupil to undertake the work of the freshman year; or is it in the theory that an approved teacher or an approved school testifies that the pupil has performed a certain amount of work in each of the several studies required for admission, while the college reserves to itself the function of judgment upon this evidence as the fitness of the pupil to undertake the work aforesaid?" Or it may be put more briefly in some such form as this: "What is the proper function of an entrance certificate given by a preparatory teacher to a candidate for admission to college? Is it to admit a candidate on the judgment of the preparatory teacher? Or is it to present testimony as to the work performed by the candidate, on which testimony the examining board of the college shall judge whether the candidate should be admitted?" Of course, the certificate meant by this question is the certificate which takes the place of all other examination by college authorities. The examination is not then an examination of the candidate, but an examination of the evidence which the candidate presents. It seems to me that a fair question is open here, and that the solution of the question of administration will be vastly helped by answering this preliminary question.

That is all, Mr. President, that I wish to do, merely to present this question as a question which has appeared on several occasions. I think it has appeared in the report of Mr. Ramsay this morning to some degree, and it has appeared elsewhere in private discussions of the matter.

PROFESSOR JOHN K. LORD, of Dartmouth College: Mr. President—You have very happily said that this is a debatable question, and any of us who have given it any consideration have found it so in our own judgment. The field of debate is so wide, and the opinions are so various, that it will certainly be worthless to attempt to make a review of the field in such a brief time as we have. It will take, indeed, a man who could "distinguish and divide a hair 'twixt south and south-west side," to tell what the statistics which were presented to us this morning meant to the minds of the teachers. My own observation and correspondence and experience have led me to feel that there is a very marked disagreement among college teachers and among secondary-school teachers as to the benefits of one system and the other. I therefore wish to offer simply one or two considerations this morning, as they have occurred to me in reference to the two systems.

Of course, a certificate system, with which I am reasonably familiar, has two points of consideration: One is its theory, and the other is its administration. In reference to the theory of the certificate system, we have had it compared with the examination system. I want to dissent from the theory that the examination for entrance to college is an educational test any further than that any event which calls upon us to test our power in this world is an educational test. Nothing that helps to draw us out is other than an educational process. But I disagree with the view that the examination at entrance to college, set by a body of men that have had nothing to do with a previous course of training, is an educational test. Last night President Eliot—if he will allow me to refer to him—in giving some analogies to entrance examinations, said that when he received a letter of a thousand words, which he was to answer fully and clearly in a letter of fifty words, that was an educational test. I think the analogy would have been exact, or more nearly exact, if he had gone on to say that he knew, in writing his reply, that his position as president of Harvard University depended on the judgment of the man who wrote the letter of a thousand words, whether his letter of fifty words was a satisfactory answer. I venture to think that a lawyer who argues a case at the bar would regard his case somewhat differently, and more in the light of a college-entrance examination, if he knew that he was going to be disbarred if he lost his case. I think the physician who practices on a patient and performs an operation for appendicitis would feel that his position was more like that of a college student if he was to be debarred from the practice of medicine if his patient died. I think the analogies would be fair in that way. It seems to me that this examination for entrance to college stands out from all other examinations, in the stress it puts upon the test. It is not an educational test, it is a classification test, and the two are just as distinct as two things can possibly be.

I do not want to follow out this, or to say anything further on this subject. There is so much to be said that one could keep talking indefinitely. But I want to call attention to one fact in reference to the correspondence between the examination and the certificate. The certificate system is supposed to be definite and clear in its administration; that is to say, it brings a student up to college with preparation complete and entire. The colleges do, as a fact, make minor exceptions; but as a rule a certificate is supposed to enter a man clean into college. He goes in because he has done the work required, either in amount or quality, as the case may be, and he enters without

condition. How is it with the examination system? I venture to say that there are more people, men and girls, conditioned on entering college, who have a year or more or less in which to make up their work, ten times over, than come in deficient under the certificate system. How is it with a man, for instance, who comes to college and has two years in which to make up his conditions, who has a year in which to make up his conditions, who has six months in which to make up his conditions? It does not make any difference what the time is, if a man is conditioned on entering college it means that he is not prepared to enter college, on the whole. If I may put it in a homely phrase, the examination opens a back-door entrance into college, it allows men to come in who are not prepared on the face of it; the examination says they are not prepared, and therefore they have to be conditioned. The result is that they come in. They may take up entirely different work from that in which they have been conditioned, going on with their college work, and showing themselves prepared, according to the standards of the college, to do college work in the college, but they have that long tail of work to bring up behind them. I have sometimes thought in this connection, Mr. President, that the certificate system does an immense benefit to a great many persons of moderate ability, and yet who ought to have college education, from the very fact that it allows them to enter college without conditions. I think that a condition is a millstone around every person's neck that enters college with it. If I had my way, there should not anybody come in conditioned. I think—I won't say absolutely, but almost—I think that in ninety-nine cases out of a hundred a condition is a hindrance and not a help. If a boy or girl is really competent to do the college work, he or she is competent to do it because of what he or she has got then and there, not because of what he or she is going to get in the next year, or the next six months, or whatever the time may be. I think, therefore, that the certificate system oftentimes is an actual benefit in that fact, that it does allow people to go into college without a condition, when perhaps they would be conditioned if they took an examination.

I throw out these two points merely, Mr. President. There are multitudes of things which doubtless come to us all in the matter, but others will wish, perhaps, to speak.

THE PRESIDENT: The President will point out some of the difficulties which embarrass the way of one who wishes to study

this subject. In the first place, in New England we have no system of really examining the condition of the secondary schools; therefore, the experiment of certificates is tried under the most disadvantageous possible circumstances. When it was first introduced into this country, an argument was made in favor of it from the German practice, secondary schools in Germany giving an outgoing certificate valid at the university. A fatal defect in the argument was that the German secondary schools are supervised by competent government educational authorities; ours by none. In New England we have nothing more than an occasional friendly visit to some schools by some college officer. That is an extremely weak and imperfect method, though perhaps better than nothing. We are, therefore, trying the certificate system under the worst possible conditions. The public, or a student of this subject like myself, cannot get the facts which are necessary to an understanding of the working of either the certificate or the examination method. At Harvard we publish every year the number of rejections at our examinations, the percentage of rejections, the number of rejections in every subject in which we examine, and the percentage of rejection in every subject in which we examine. I know no other institution in this country which does this. Yet this publicity is necessary to secure for a student of the subject the results of the experience of large numbers of institutions. Without publicity we cannot get evidence of the working of these two systems. Again, as soon as a New England college puts the certificate system at work freely, it ceases to have any useful observation of the examination method; and consequently its officers gradually fall into the state of mind of Professor Lord, who thinks it a merit of the certificate system that it admits people clear, invariably. We could easily accomplish that without having either examination or certificate. Moreover, as Mr. Ramsay has already pointed out, in a college which really works on the certificate plan, none but the refuse students are admitted on examination. Of course, all comparison in such colleges between the men or women admitted on certificates and those admitted on examination is absolutely useless, as has

already been pointed out here and as has been pointed out in former discussions. There is not the slightest use of asking in a college which really works on the certificate plan which students turn out best, the certificated or the examined. Of course it is the certificated. I mention these things to show the difficulties under which a real student of this subject labors in New England, or in the United States at large.

Moreover, the certificate system in New England is not tried under conditions which an advocate of an examination system would think fair. Why not? Because the certificate system in New England is tried in presence of the examinations maintained by Harvard, Yale, and Bowdoin; and the certificate system, working in the presence of those examinations, is, I venture to think, a totally different thing from what a universal certificate system would prove to be. The strict examinations maintained by those colleges in New England which still use the examination methods solely, greatly affect the results of the certificate system. As I heard President Carter, of Williams, say years ago, "We like our certificate system well enough, but we don't know what on earth would happen to it if Harvard and Yale should adopt the certificate system." I think, therefore, that a real student of this problem labors in New England, or even in the United States, under very serious difficulties, which not even the excellent report to which we have just listened can remove. I hope there are ladies or gentlemen here present who can point out how the field of this inquiry can be better cultivated.

#### THE FEDERATION OF EDUCATIONAL INSTITUTIONS

PROFESSOR WILLIAM MACDONALD,  
Bowdoin College

I am aware, Mr. President, that it is seldom well to begin one's remarks with an apology or a disclaimer. I think I ought to say, however, that the title assigned to my paper is somewhat more ambitious than the substance of the paper warrants. I did meditate a very ambitious paper indeed, but it seemed, on the whole, better to devote the main part of the paper to a particular phase of the subject which seemed to me of special interest

and importance. I ought to say, also, that it was not with any malice on my part that I prepared a paper, some considerable portion of which has something to say on the subject of examinations and the certificate system. I knew nothing of what the other papers on the program were to be until I received the printed program, some time after my own paper was prepared, and of course I did not know of the subject-matter of the address of President Hadley or of the report of Mr. Ramsay until I listened to those last night and this morning. I feel, on the whole, gratified that at the end of a discussion to which I have listened with mingled interest and anxiety, there are still some considerable portions of my paper which, it seems, on the whole, worth while to read.

No one who has followed at all closely the progress of secondary and higher education in New England during the last twenty years can, I think, fail to have noticed the marked advance that has been made in the direction of uniformity. This advance has not been confined to any one department, or to any one class of institutions, but has been, in the main, general and comprehensive in its character. The diversity of methods and aims, which might naturally have been expected to result from the thoroughgoing transformation of education which has taken place in the period mentioned, has not come about. On the contrary, reconstructed and reorganized as the work of higher education has been, there is probably more uniformity today in regard to it, on the part of both the colleges and the preparatory schools, than at any time for a considerable number of years. All of our New England colleges, for example, have adopted the elective system, though with varying range in the application of it. Nearly all make some provision for the admission of students without Greek, even though Greek be still, with some, a prerequisite for the degree of Bachelor of Arts. As substitutes for Greek practically the same range of subjects is allowed—modern languages, physical science, mathematics—though as yet in varying proportions and combinations. The laboratory method, not only in physical science, but, so far as its essential principles go, in other departments as

well, is so general as no longer to provoke comment. In the preparatory schools there has been, as we all know, a great readjustment of methods and curricula to meet the demands of the college course; and the employment of certain well-defined methods of instruction, as well as the observance of equally well-recognized principles in the arrangement of the course of study, are now general in the better class of schools.

It is significant that this movement towards uniformity has been powerfully aided, and in some cases directly initiated, by the work of educational associations. Under the direction of various committees of the National Educational Association, the American Philological Association, the Modern Language Association, and the American Historical Association, the methods of instruction in the preparatory schools, the make-up of the curriculum, and the requirements for admission to college, have been searchingly investigated, and the general principles upon which they should rest clearly stated. I suppose that in no country has so powerful a force been brought to bear upon both school and college as has been brought to bear by these associations. In New England the Commission of Colleges, devoting itself to the field of college-entrance requirements, has had the satisfaction of seeing uniformity grow apace under its labors, and a great deal of the efficiency of both preparatory and college education is due to the work of that body; while in the free discussion of questions touching the interests of both school and college, and in bringing representatives of the two classes of institutions into contact and acquaintance, our own New England Association of Colleges and Preparatory Schools has performed an extremely useful work.

It is worth while noticing, further, that this movement towards uniformity has not been vitiated by the notion that there was any sufficient virtue in uniformity, considered simply as such. The demand for uniform requirements, uniform standards, uniform methods, simply for the sake of regularity and formal accord, is the cry of the machinist, not the idea of the educator. Notwithstanding the steps that have been taken to organize secondary and higher education, we have probably never been in any less

danger than we are today of seeing our educational system reduced to the condition of a mere machine, grinding out its product in a regular, impartial, and unvarying way. It is because we have sought to appropriate certain ideas, and put in operation certain principles of a fundamental sort, that we have worked for orderliness and uniformity in reconstructing our educational work. In what I have to say, therefore, I wish to disclaim any sympathy with those who think that the best way to improve a situation is simply to construct a new machine, or that the limitations of our New England education are to be removed by organizing another association, and drawing up a new set of blanks.

It must be obvious, however, to those who are daily concerned with the work of colleges and preparatory schools, that the claim to the attainment of uniformity is subject to some important modifications. At a good many points our attainment in this direction is more apparent than real. We have formally adopted, for example, in the main, certain carefully prepared schemes of requirements for admission to college; but any one of us, I fancy, would be glad to know the names of any two colleges that interpret their entrance requirements alike. Any teacher who has taken the trouble to collect and compare entrance-examination papers from a number of colleges, knows how considerable the diversity among them is likely to be—how varied they are in difficulty or in comprehensiveness, or as tests of the student's knowledge. What is true of the papers in any particular department is still more true when the papers in different departments are compared, and the intellectual demands made upon the student in one line of work are weighed against the demands made upon him in another. Moreover, some colleges admit only upon examination, others mainly by certificate; and while uniformity in the interpretation of requirements under the examination system still leaves much to be desired, uniformity of interpretation under the certificate system is still, like the belief of some men in immortality, hardly more than a "pleasing hope."

If we go a step further, and examine the work of the colleges themselves, conditions equally diverse are found to prevail.

The requirements for the first degree are not the same in different institutions, either as to the number of courses, or the number of weekly exercises required. The word "course," common as is the use of it, can be defined only in terms of the institution employing it. It is undeniable, I think, that college courses which, from the accounts of them given in the catalogues, would seem to cover practically the same ground, do nevertheless differ materially in content. There would seem to be, for example, no reason why a course in elementary German, taught four hours a week throughout the year in one institution, should not be in all essential respects identical with the elementary course in German taught four hours a week throughout the year in another institution; but that it is so identical is, as all college men know, by no means always the case. I can no more than mention such other important matters as the ranking system, the conditions of promotion from class to class, the injection of professional courses into the senior year, and the award of scholarships and other beneficiary aid to freshmen—each and all of them matters in respect to which the action of our New England colleges is absolutely diverse.

It must long have been apparent, I think, that the administration of so much of our educational system as pertains to admission to college—and it is of that part that I wish from this point on particularly to speak—is carried on at very considerable expense, in both money and time. Every college in New England draws its students from an extensive area. If it admit students by examination, it must prepare its own set of examination papers, conduct its own examinations, often at a number of centers, read and mark the papers, keep its own detailed record of the results, and make report to the applicant and to the teacher under whom he was prepared. If the college admit on certificate, it must devise its own method of examining or approving schools, and keep track of the work of students during their freshman year, with all the other interminable book-keeping which a sincere treatment of the certificate plan involves. Every institution in New England is doing one or other of these things at this time, has done them for years, and probably

expects to do them for years to come. In other words, dealing with a subject which was never easier to deal with than now, "handling a product," if the phrase may be allowed, which was never easier to handle or of more uniform character, we have as many administrative machines for this particular purpose as there are institutions, and all maintained at considerable cost, not only of money, but also of mental, physical, and occasionally moral wear and tear.

I should be the last to affirm that the work done in this direction is not well done. I do not believe that the administration of college entrance requirements, including, of course, once for all, the work of preparatory schools in connection therewith, can ever be intrusted to persons who are not themselves active members of the colleges and schools concerned. But I am impressed with the disproportion between the labor involved in the maintenance of the system as we now have it and the results obtained under its operation. We are employing many more men and women in the business of testing the fitness of young people who apply for admission to college than there is any rational necessity for, and my own observation compels me to think that we are employing some men and women who ought not to be employed in the business at all; and I think that the burden of proof is upon those who insist that continuance in the time-honored way is necessary, rather than upon those who venture to advocate some better way.

What I would urge, accordingly, is the adoption of some plan of coöperation by the colleges and preparatory schools of New England, primarily for the joint administration of preparation for and admission to college, and, beyond that, for such other matters of common interest and concern as shall from time to time present themselves. It seems to me that the time has come when the numerous institutions in New England, having a common purpose, seeking to employ common methods, and striving to attain common standards, can so combine as to secure greater economy and efficiency, and give to New England education a higher degree of unity than it has up to the present time enjoyed.

Fortunately for our purpose, we have an example of federation, for the purposes of entrance examinations, in the action lately taken by the Association of Colleges and Preparatory Schools in the Middle States and Maryland. The plan, which has received the assent of all the institutions interested, was adopted last May, and is to go into operation next June. The details of the scheme are so interesting, and the movement is at the same time, as it seems to me, so important an advance step in the direction of educational federation, that I venture to summarize its chief provisions.

The plan adopted by the Middle States Association provides for the creation of a college-entrance examination board, consisting of the president or an authorized representative of each college and university in the middle states and Maryland having a freshman or entering class of not less than fifty students, and of five representatives of secondary schools, chosen annually by the association. From this board is to be chosen annually an executive committee of five, at least one of whom must be a representative of the secondary schools. To this examination board is intrusted the conduct of entrance examinations for the colleges and universities represented in the association, including the preparation and marking of the examination papers.

For each of the subjects in which the examinations are to be held the board is required to designate, not later than December in each year, three associate examiners, two of them college teachers, who shall prepare examination questions, or other appropriate tests, in the subjects assigned to them. One of the college members of each of these groups of three is known as the chief examiner. The papers or tests agreed upon by the several groups of examiners are submitted for approval or revision to a committee made up of the chief examiners and the five representatives of the secondary schools who are members of the college-entrance board. As examinations are to be held next June in eleven different subjects, this committee of revision will have sixteen members. The action of the committee is final.

Not later than May the board is to appoint a staff of readers, to read and mark the examination books or other tests. Both

college and secondary-school teachers are eligible for such appointments. The examinations themselves are to be held at such times and places, and under such supervision, as the board may direct; and the printing and distribution of the papers are also committed to the board. On the completion of the examination, the answer books are to be transmitted to the secretary of the board, who distributes them to the readers who have been selected. Seven days are allowed for the reading and return of the books to the secretary. Upon the receipt of the books from the readers, certificates setting forth the results of the examination are to be issued by the secretary to each candidate. A uniform system of marking also forms part of the plan.

The plan further provides for the payment of a fee of \$5 by each person applying for examination; and from this fund, I suppose, rather than from a *pro rata* contribution by the colleges and schools concerned, the expenses incident to preparing the papers, conducting the examinations, and reading the books are to be paid.

The meeting which adopted the plan, held at Columbia University, on May 12, included representatives from Columbia, Barnard, Bryn Mawr, Cornell, Princeton, Pennsylvania, Vassar, Union, and other institutions, besides leading secondary schools. The heartiness with which the scheme was adopted would seem to indicate that the members of the Middle States Association regarded it as meeting a pressing need, at the same time that it did not in any way endanger their individual interests.

It is, I think, a fair question, and one which we may well seriously consider, whether some such plan as this might not with advantage be adopted in New England. Some of the details, of course, we might prefer to change. Personally, I doubt whether we are ready to require a fee from each applicant for admission to college; and I am inclined to think that the number of representatives of preparatory schools on the examination board might well be increased. But the principles on which this plan rests seem to me theoretically sound and practically useful; and I am unable to see wherein our situation has

peculiarities likely to diminish the practical advantages of such a scheme.

To look first at the question of finance, I said that I doubted the practicability of imposing a fee upon each candidate for examination. I do not urge the point, however, since it does not seem to me to be a vital detail of the plan. If the fee principle is adopted, the necessary support for the examination board is provided for, and the amount now expended by the colleges in administering their examinations and certificate systems is saved. Five dollars apiece from each successful candidate would have meant about \$15,000 last year, counting the number of enrolled freshmen as approximately equal to the number of candidates. On the other hand, if the fee system is thought inadvisable, the expense of the system could readily be met by a pro rata contribution from the colleges and schools concerned. I am inclined to think that the amount of such contribution would be appreciably less than the present cost of running the entrance machinery.

More important, however, than the question of dollars and cents is the advantage to be found in the use of identical examination papers, prepared by representatives not only of different institutions, but of different classes of institutions as well. I am disposed to think that an examination paper in mathematics, Latin, or chemistry, prepared by two teachers from as many different colleges and a teacher of the subject in a secondary school, is likely to be a better paper, a more fit paper with which to test a candidate who presents himself for examination in the subject than a paper prepared by any individual instructor or by any departmental faculty of any college or university. I think that we should find a distinct gain not only in mutual regard, but also in mutual understanding, between the schools and colleges if the examinations held ceased to be the essentially one-sided tests that they are now. I certainly do not know of any reason why a college should fear that its standard would be lowered or the strictness of its tests relaxed because the testing paper was drawn up by a committee on which sat a secondary-school teacher; nor do I think that any college need

hesitate to have the students who enter it enter on an examination arranged by competent teachers who, in the wise ordering of Providence, do not happen to belong to its own faculty. There is nothing so dangerous or imperfect about an examination paper prepared by instructors at Harvard or Yale or Amherst as to make institutions like Brown or Dartmouth or Bowdoin fear to admit students who have successfully passed it.

The mere fact of identity, too, is worth considering at this point. We have had, in the last few years, quite a number of programs drawn up setting forth the kind of examination that might be given for admission to college in this subject or that, and the kind of preparation that should be given to students who proposed to offer themselves as candidates. A number of these programs have been adopted by most if not all of the colleges in New England, and are set forth in their published catalogues. We have agreement as to English, Latin, and Greek; somewhat less agreement, but still considerable, regarding French, German, history, and physics. On paper, in other words, the requirements of the different colleges at these several points are the same. It seems to me that it would be a marked gain if we could go a step further and set the same examinations in these subjects to all persons who offer to pass in them. So long as a dozen colleges state their requirement in English in the same way I see nothing to be gained by preparing separate examination papers for each of them. If the examination is harder or easier, better or worse, in one case than in another, it is in consequence of an interpretation put upon the requirements by the one institution or the other which was never contemplated when those requirements were framed, or understood to be reserved when the requirements were adopted. I cannot admit that any college examiner, if joint action can be attained, has a right to frame an examination paper embodying his particular ideas as to how the subject should be taught, if the requirements for the subject as stated in the college catalogue have been adopted upon the report of some conference or commission, such as those which have so materially modified the

statement of entrance requirements during the last few years. There is abundant room for any college teacher to impress his individuality, if he has any, on his students in his class room, without injecting it into an examination paper on a subject in regard to which agreement as to methods and amount of work may fairly be assumed to have been reached.

I am aware, of course, that there exist in the minds of many persons some more or less serious objections to the adoption of such a plan as has been spoken of; and without dwelling further upon the advantages of such a coöperative scheme—advantages which, it seems to me, must be apparent, notwithstanding the arguments brought against it—I take the liberty of devoting the moments remaining to me to a consideration of one or two of the most important of these objections.

The greatest obstacle in the way of the adoption of some such plan of joint action as has been adopted by the Association of the Middle States is to be found, I think, in the division of the colleges into the two classes of those who admit students on certificate and those who admit only upon examination. It is no part of my present purpose to engage in a discussion of the certificate plan as such. Its advantages and disadvantages have been very often debated, and I have no disposition to take up the cudgel for one system or the other. It does seem clear, however, that the creation of a college-entrance examination board would necessitate a definite agreement with regard to this matter. With the exception of Yale, Harvard, and Bowdoin, all of our New England colleges receive students under one form or another of the certificate plan, and in most, if not all, such institutions, the admissions by certificate are quite the largest proportion of the whole number of admissions. A joint scheme of administering entrance requirements would give the colleges a chance to choose, once for all, which god they would serve. The obvious course, apparently, would be either for all to admit on certificate or else for all to admit by examination. No doubt a college-entrance board could deal with a certificate régime as well as with examinations, but to deal with both at once would add greatly to its labors. If I may express a personal opinion,

I would say that I have long thought that a number of institutions which now admit by certificate would prefer to admit only by examination, and would return to the examination basis if they could be assured of similar action by all their competitors. Such general return, of course, could work no disadvantage to any one institution. When it should once have come about that the only way to get into any New England college was to pass the prescribed examinations, students and teachers would probably accept the situation without serious complaint, and without loss of enrollment to the college.

One thing that the college-entrance board could bring about, therefore, is the restoration of the examination system in place of the certificate plan. On the other hand, if the certificate plan is to be retained, either in whole or in part, it seems to me that it should be adopted by all the colleges, and the administration of it committed to some central committee or board. If admission by certificate is to be the rule, why should we not have a joint committee for New England to provide for the examination of schools, as the examination board of the middle states provides for the examination of students, and whose certificate should be necessary to secure admission to college? If the preparatory schools of New England were examined and rated by a board made up of representatives of the colleges and of the schools themselves, and certificates issued based upon such inspection, I cannot see why any institution, however high its standards, should hesitate to accept students bearing those certificates. Such a systematic inspection would be by no means an impossible task, while the results that would accrue from it could not fail to be beneficial. There cannot be, in the long run, any essential difference, so far as the integrity of college work is concerned, between admission based upon an examination of the school and admission based upon an examination of the pupils, and I am confident that the joint action of the colleges of the New England states and the schools themselves in this matter would not only tone up and strengthen very perceptibly the present irregular and unsystematic certificate plan, but might also be made to insure as effective a preparation

for college as is now secured under the stimulus of an examination. No college or university, acting alone and single-handed, is likely to devise and maintain, for any considerable period, a certificate system that will bear close inspection; but I see no reason why all of the colleges acting together might not secure all the advantages that a certificate plan is thought to possess, while escaping most, if not all, of the dangers which have attended the system as thus far carried out.

A second objection is urged by those who feel that none but members of the college faculty should pass upon the papers of the candidates for admission to the institution. As I heard a distinguished president say, a short time ago: "We could never consent to have anyone else read our examination books." So long as the stated requirements for admission to college are variously interpreted by different institutions, so long, of course, there will be conclusive force in this argument; but so long, also, will there be essential diversity of standard, although from that weakness we profess largely to have freed ourselves. On the other hand, if our requirements for admission mean anything, they ought to mean something in particular, and something that can be made clear to average men and women engaged in school, college, and university teaching. In other words, they ought to be capable of uniform interpretation. The point to be insisted upon is that there is neither necessity for nor propriety in having two standards of attainment in the same subject for the same grade of students, simply because there are several institutions instead of one to be dealt with. If Harvard and Yale, for example, adopt the same requirement in algebra, and state the requirement in the same way in their catalogues or elsewhere, I fail to see any reason why the same examination paper in algebra would not suffice for the two institutions; and, further, with the requirement in algebra stated in the same terms, and adopted, after ample discussion, with every opportunity for a clear understanding of what it meant, I confess that I cannot see what difference it makes whether a Yale or a Harvard man corrects the paper, or, for that matter, whether it is corrected by a man from either institution. The only point is

that the paper shall be such a paper as the stated requirement calls for, and that it shall be corrected and marked by a person competent to decide to what extent the demands made by the paper have been met; and for the attainment of that object neither Harvard nor Yale, Dartmouth nor Brown, Williams nor Tufts could claim, or would care to claim, any superiority.

A third objection may, doubtless, be raised by those who fear lest the adoption of a joint scheme may operate to draw students away from this institution or that, and thereby interfere with the relative standing of colleges and dim prestige. In particular, the friends of the smaller colleges have sometimes expressed themselves as fearing lest their students, if they found themselves able to go to a larger institution, would be strongly inclined to do so. If a man holds a certificate issued by the central examination board, showing that he has passed a certain number of subjects, and knows that the certificate would be accepted at Harvard as well as at Bowdoin, would he not be likely to go to Harvard instead of to Bowdoin? Would not our smaller colleges suffer in numbers from the superior attractiveness of their larger neighbors, or would there not be danger that a central board would put the standard so high as to exclude many who now find a place in the smaller institutions? I do not myself think that the danger in this direction is sufficient to warrant any New England college in making preparations to close its doors. Students are drawn away from the smaller to the larger places now, and in increasing numbers from year to year, and yet somehow the small college continues to thrive. Young men and women, it must be remembered, go to college for a variety of reasons other than because of the relative ease or difficulty of getting in. Some are moved by social, religious, or traditional influences. Some rely much on the opinions of teachers, pastors, or friends. Many are drawn by the name or reputation of the college, its distinction in scholarship, its prowess in athletics, its indications of rapid material growth, or its skill in getting its name often into the newspapers. Questions of distance and expense count largely with many. There is, I think, extremely little reason to fear

that any such federation of interests as has been here advocated would work injury to any healthy institution. On the contrary, it seems to me that it would immensely strengthen the smaller institutions, and that if all the students who entered New England colleges and universities came in with the same kind and value of certificate in each subject presented, the problem of the healthy smaller college would continue to be the problem of selection and not the problem of survival.

In what I have said on this subject I have, naturally, made no attempt to set forth the details of a coöperative plan. Such work is always, I think, best done by a committee of representatives of the institutions concerned. There need be no fear, however, but that such machinery as the carrying out of the scheme involves could readily be constructed and made to run smoothly and successfully. As to the undertaking itself, it seems to me to be one of great importance, and one to which this association, representing as it does the various institutions necessarily concerned, cannot too soon or too earnestly give its attention. Beyond any question, I think, the federation of institutions is one of the subjects certain to be prominent in educational discussion for the next few years. I am unwilling to believe that what has been inaugurated in the middle states cannot be successfully set up here in New England, or that what has been unanimously adopted in the one section is not a matter of concern to the colleges and schools of the other. The only question is whether we are prepared to undertake the work, whether we earnestly desire the benefits likely to accrue from such a form of federation, or whether we prefer the present plan. Federation without mutual concession we cannot, of course, expect to attain; but if we can rid our minds of the notion that concession involves either a lowering of standards or a surrender of healthy and proper independence, the apparent difficulties in the way are pretty certain to disappear.

[The limitations of space make it possible to print here only a small portion of the discussions on the leading topics of the meeting. These discussions will appear in full in the Proceedings of the Association, edited by the secretary, Dr. Ray Greene Huling.—EDITOR SCHOOL REVIEW.]

## BOOK REVIEWS

*First Book, Home Geography; and Second Book, North America.* By RALPH S. TARR and FRANK M. McMURRY. Macmillan & Co. Price, 60 cents each.

THE *First Book* is to be looked upon as a serious, though not altogether successful, attempt to write a book on geography for children. One evidence that the book is not altogether successful is found in the fact that the reader is all along aware of the effort to write for children. Under these circumstances it is not strange that there are frequent lapses from the style which children can understand, to a style which is quite beyond them, and frequent statements which imply an understanding and a knowledge far beyond that of the pupils for whom the book was written. Apart from these defects, which it would be difficult for anyone not accustomed to working with children to avoid, there are other vulnerable points.

The verbal illustrations are frequently ill-chosen. For example, on page 72, in connection with the attempt to explain why heated air rises, the illustration introduced is as follows: "Light objects, such as wood, will rise and float in water. So, also, when air is warmed and made light near a lamp, the cooler, heavy air all around flows toward the lamp, and the warm air is forced to rise." It is doubtful if children will get a better idea of the rise of heated air, because of this comparison.

Apart from these infelicities of style, the impressions left are, in many cases, inaccurate. Thus, on page 25 the impression is conveyed that ores are found only in mountains; on page 34, that slopes are the especially valuable part of the land surface. To the child, a slope means a steep slope; and it is far from true that slopes, as the child understands slopes, are the most valuable part of the country. On pages 115 and 116 the impression is left that the earth has but one motion, that of rotation. On page 168 the impression is conveyed that eastern Kansas and Nebraska have not rainfall adequate for agricultural purposes.

In other cases there are statements which are inaccurate. Thus on page 6, we find the following statement: "According to the definition of geography, which treats of the relation between men and the earth — a hill or a lake is worthy of mention only because it bears a relation to us, the men upon the earth; considered by itself it is not a part of geography." On page 19 there is the statement: "Real mountains are found only where parts of the land have been slowly raised or lowered until some portions are much higher than the surrounding country." This, of course, takes volcanic mountains out of the category of "real" mountains. On page 172 we learn what will surprise the inhabitants of that city, that Milwaukee is "specially noted for its flour mills."

While the figures in the text are generally well-chosen, some of them are inaccurate, as, for example, Fig. 30, where the cross-section part of the figure is out of harmony with the part representing the surface; Fig. 4, where disintegrating rock is represented by a series of rounded pebble stones as unlike disintegrated rock as possible; Fig. 6, where clover roots are said to be extending down great distances into the soil, but where the vegetation represented bears no resemblance to clover; and Fig. 54, where an extraordinary bottom is given to the sea. In too many cases,

also, the figures are indistinct. While, therefore, the selection of material presented in the book is on the whole good, and while much of it is simply presented, the child who has no teacher will fail to understand some parts of it, and will get erroneous impressions from others.

From the pedagogical point of view there are serious criticisms to be made. The book seems to proceed on the assumption that the teacher knows but little; at least, not enough to ask intelligent questions, or to put the emphasis in the proper place. Carrying out this assumption, the book is marred by a series of perfunctory questions introduced at the end of each section or chapter. If the questions were of the stimulative sort, there might be some excuse for them, but they are of the sort calculated merely to draw out what the child remembers of what is in the text. It is difficult to see what their function is, unless they are meant to make it unnecessary for the teacher to read the book. One cannot help wondering whether it was the authors or the publishers who insisted on the introduction of the questions. If the publishers, the questions must be in response to a popular demand. If this be the case, the questions are a most serious commentary on the present status of geography teaching.

Along with the questions there are certain "suggestions," many of which are good; but they would have much greater force if they were made by the teacher, instead of by the book. Were the questions and suggestions followed, they would seem to take all initiative from the teacher. If the teacher must have such questions put into his mouth for him, and such suggestions into his mind, it would be better to have them in a separate pamphlet issued for teachers only, and to have them kept out of the book which goes to the pupils. In this case, the efficient teacher will be spared the humiliation of the constant suggestion of inefficiency; and the incompetent teacher will be spared the humiliation of having his incompetence constantly exhibited by the printed page. The pedagogical machinery is too much in evidence.

Throughout the first part of the book it has been the plan of the authors to introduce a summary about every second page; at least there is a line in italics introduced at stated intervals which we suppose to be meant for a summary. Some of these summaries are superfluous; some of them altogether foolish, as that on page 38, where the summary is: "The hills, mountains, and valleys are very beautiful;" and some of them are inappropriate, since they contain ideas which have not heretofore appeared in the text, as, for example, that on page 44. The comments made above, in connection with the "questions," apply with equal force to these summaries.

The book does not, therefore, seem to meet the needs of the child who has no teacher, or of the child who has. While it has many good points, and while it was seriously meant to be a good book, it seems to us that the field is still open for a *First Book of Geography*.

In the *Second Book*, the authors do well to emphasize the physiographic basis of the subject. In general it may be said that the selection of matter in this volume is good, that it is for the most part clearly written, and that the order of presentation is happy. The style of the book is on the whole much better adapted to the pupils for whom it was written than in the case of the *First Book*, though even here there are traces of the infelicities mentioned above. There are, furthermore, the same sorts of inaccuracies and inadequacies, suggesting haste in preparation. For example, it is said (p. 13) of the continental ice-sheet that it reached "as far south as New York City and the Ohio River in the East, but not so far south in the West;" whereas, the ice-sheet reached farthest south in Illinois, which is not ordinarily called East, and

much farther south in Kansas (which is surely West) than in New York. Again (p. 174), it is implied that among the middle Atlantic states, iron is found only in Pennsylvania, though according to the latest published statistics, and according to the statistics in the last chapter of the book (p. 413), Virginia produces more iron than Pennsylvania, and other states of the group should hardly be left out of account. The plains of the Mississippi Basin, so far as they lie in the southern states, are said (p. 203) to be interrupted by some low mountains in Indian Territory and Arkansas, but nothing is said in this connection of the mountains of Oklahoma and Texas, which are in the area under discussion. The Chicago Drainage Canal is said (p. 267) to connect Lake Michigan with the Illinois River. This is, of course, true, in the same sense that it connects Lake Michigan with the Mississippi. Duluth, although situated in the greatest wheat-producing state in the Union, is said to owe its great elevators to its proximity to "the Dakota wheat-fields." Statements comparable to the above are too common throughout the book.

There are various omissions, which would hardly have occurred had sufficient care been taken in the preparation of the volume. For example, in connection with the building-stone of the central states, the product of Ohio and Indiana is emphasized, but that of northern Wisconsin and Michigan is not referred to. Although manufactures and articles of commerce in general receive attention, no mention is made of Portland cement, which is now an extremely important article of manufacture and commerce in various sections of the country.

Many of the figures of the text are excellent. This is especially true of the relief maps of the continent, of the United States, and of the various groups of states. Many of the other figures are also good, but in general the half-tone work is poor. Many of the figures, indeed, are so poor as to be absolutely worthless. This is true of such figures as 11, 18, 21, 184, 188, and 256. In many other cases, the figures are so poor as to give but a very indistinct impression of the thing represented. Figs. 186, 242, 253, 289 and 290 are examples. In some other cases the arrangement of figures is confusing. This is especially true in some of the maps, such as those on pages 150, 194, and 224, where the child will be likely to misunderstand the geographic relations of the several parts represented. The character of the figures now and then introduces a humorous element; for example, Fig. 280, beneath which stands the statement: "One of the giant trees of British Columbia. Notice how small the man appears." This is really a puzzle picture, for while the figure shows the giant tree well enough, it will take a sharp-eyed child to find the man, not because he is small, but because he is indistinct.

The comparative statistics introduced in the final chapter of the book are excellent, and their representation is effective. It may be suggested that the dates for which these statistics stand should be given, for they vary greatly from year to year. It would have been well, also, if the graphic statistics could have been extended beyond the five leading states. The statistics might well have been carried so far as to include all of the important states under each heading. Comparative statistics representing the productions of past years would be very welcome in the same connection, since such statistics would show the progress of development.

If the authors should prepare a *Third Book of Geography*, and make it as much better than the *Second* as the *Second* is better than the *First*, it would be a thoroughly good book.

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## EDITORIAL NOTES

GEORGE HERBERT LOCKE

MR. PAUL H. HANUS, professor of the Theory and Practice of Education in Harvard University is undertaking a very thorough investigation concerning the working of the elective system in the colleges and the secondary schools of this country. For this purpose he has issued a circular, asking for information under the following heads: (1) Please name the studies which you have taken during your school career, including your courses for the present year. Kindly underscore prescribed studies. (2) Has your choice of studies been determined by any of the following reasons: (a) Temporary interest due to the recommendation of other students; (b) The advice of teachers, parents, or guardians; (c) deliberate choice in accordance with your own tastes; (d) the desire to avoid difficult subjects. (3) If two or more of these reasons have determined your choices, please say so. If other reasons than those enumerated have determined your choices, please give them.

These questions are asked of seniors in the high school, and Mr. Hanus will send to the headmaster of any high school printed forms to be thus filled out. The investigation is extended also to college courses, and the questions there asked correspond pretty closely to those asked in the secondary schools. We read very much of the theory of elective studies, but after all the most valuable contributions to literature on this subject will be the experiences that schools have had in the actual workings of this system. Hence, we believe that the result of Mr. Hanus' investigations will do more to settle the question of elective studies, their advantages and their disadvantages, than anything else that has up to this time been offered. We hope to add something of definite value to this investigation in an article on "The Galesburg plan of Elective Studies," by Mr. F. D. Thomson, principal of the high school. This will appear in the January issue of the SCHOOL REVIEW.

THE Associated Academic Principals of the State of New York will hold their sixteenth annual holiday conference in Syracuse, on Wednesday, Thursday, and Friday, December 26-28. While this conference is of secondary teachers and is in the interest of high schools and academies, there is a cordial invitation to colleges and normal schools to send representatives, who are free to take part in the discussions at the meetings. The spirit and objects of this meeting are too well known to need any extended statement, excepting to say that it is one of the most important gatherings of persons

interested in the vital problems of education in the eastern states. Some of the subjects to be discussed are as follows: To what extent should the high school be graded? What is the aim and purpose of nature study, and how can it be rationally applied to school work? The place of music in the high-school course. Defects of history teaching in the high school as revealed in the college. How much history is it possible to teach in the grades and how much is desirable? What is meant by "rational education?" The vital question of athletics in high schools will be discussed and a morning given to the discussion of Professor Münsterberg's paper in the *Atlantic Monthly* on school reform. Particulars in regard to the reduction of fare on the railways and other specific items of interest in connection with the meeting will be given on application to Mr. S. Dwight Arms, secretary of the association, Albany, N. Y.

SUPERINTENDENT F. D. BOYNTON, of Ithaca, N. Y., has just issued his report of the progress of education in that city for the year 1899-1900. It is full of interesting and suggestive material, and shows what substantial progress can be made in a city which has enlightened legislators and administrators. The growth of the high school has been phenomenal, for, with practically no increase in the city or school population, the attendance has increased from 308 in 1890 to 572 in 1900. This is due partly to the influence of Cornell University, which makes the school prominent as a fitting school, partly to the lengthening of the course from three to four years, but the superintendent says that "equal, if not greater than these, is the expert instruction given in the class room; the personal interest of the teachers in student affairs, as shown in athletics, musical, and literary clubs, lecture courses, social, and other entertainments; and the liberal courses of study offered, thus affording a student an opportunity of developing his individual tastes." There are two interesting experiments in education being tried in Ithaca, the one in elementary education, the other in secondary, the results of which will be looked for with more than ordinary interest. The one in connection with elementary education was suggested by the remarks of President Eliot at the National Educational Association in 1892, and President Harper at the New York University Convocation in Albany in 1899 on the subject of "Waste in Education." Mr. Boynton describes the experiment as follows:

One year ago, after the public schools had been in session for about three weeks, with the consent of the president and the board, a notice was printed in our local papers announcing that a one-hour class would be opened in connection with the training department of the high school. The first fourteen children who responded to this notice were taken. During the remainder of the first term these children were in school for forty-five minutes a day. Later this time was extended to one hour, and in the spring quarter to one and one half hours. The class was under the personal direction of Mrs. Jenkins. In the middle of the year a second class of about the same number was organized in the same manner. The children in both of these classes were considered as too young to enter the primary grades of the public schools. The

first class did, without difficulty, the work of the first year and a part of the second year; and the second class made corresponding progress. These two classes still form the practice department for the teachers studying in our training department. The first class is doing the work of the first half of the third grade and the second class the work of the first half of the second grade. While one swallow does not make a summer, it can be maintained that the two classes with which this experiment is worked out were not in any sense exceptional; and it is my opinion that any class of children in the primary schools of this or any other city can be divided into small sections on short time with the same satisfactory results.

With the consent of the teachers' committee primary teachers have this fall been instructed not to retain their pupils for a longer period than one and a half hours, unless the conditions of the school made a variation temporarily necessary. Thus far the plan has worked to their entire satisfaction.

The other experiment is in connection with the development of a six years' high-school course, as recommended by the Committee on College Entrance Requirements. Mr. Boynton speaks of the desirability and the local possibility of such a scheme as follows:

Our high school is peculiarly well adapted to the carrying out of this suggestion, inasmuch as the seventh and eighth grades now occupy rooms on the first floor of the building. In fact it may be said that the scheme is practically in operation since pupils of the grammar school are permitted to take Latin, history, and drawing, all high-school subjects. Yet a further expansion in this direction is possible and highly desirable.

Few students leave school at the end of the sixth grade. They are prevented from doing so by the compulsory education law. By considering the pupils in the seventh and eighth grades as high-school students, inspiration would be given to many to continue in school longer than under any other plan. It would also, by permitting the correlation of the program for the seventh and eighth grades with the ninth and tenth, save much time to the pupil. It has been estimated and theoretically proven that one year of a pupil's time could thus be saved without any loss whatever to his intellectual development and without increasing his present duties one iota. This change would permit the arrangement of a satisfactory secondary four years' program.

The committee appointed to formulate regulations for the proper government of intercollegiate sport has at last finished its work and made known the result of two years' close deliberation. Those who comprised the committee were: Professor Ira N. Hollis, Harvard; Professor George S. Patterson, Pennsylvania; Professor Henry B. Tine, Princeton; James T. Kemp, Columbia; Benjamin I. Wheeler, California; William H. Munro, Brown; and S. M. Dennis, Cornell.

The rules adopted provide that athletics shall be in charge of a committee, upon which the faculty shall be represented. No student is allowed to take part for a university of any kind unless he shall satisfy the committee that he intends to remain a *bona fide* student throughout the year. Students who have taken part in contests for gain at any time are barred.

No student shall represent a university in more than one branch of sport

in a single academic year without permission from the Athletic Committee. No student shall be a member of both the freshman and university teams.

No student shall represent one or more universities or colleges in athletic contests for more than four years. In applying this rule to students going from one institution to another only those years are to be counted which are regarded as the equivalent of college years in the institution to which the student is admitted.

No student who has played in any intercollegiate contest upon a team of any other college or university shall represent a university till he has resided one academic year at the university and has attained in the annual examinations upon a full year's work a satisfactory standard of scholarship.

Students who have not passed examinations showing themselves capable of a year's work at the university shall not be permitted to play on either class or university teams until they have resided a year at the university. Special or partial students, unless their studies are equivalent to the course prescribed for a degree, are not permitted to engage in intercollegiate athletics for a year. Students who have been dropped to a lower class are not allowed to represent the university in athletics until they have either regained their class or done a year's satisfactory work in the lower class. This rule may not be evaded by transfer to another department, because the student must remain a year in the new department before eligible. Students may not play on freshman teams if they have been freshmen at universities before. All schedules for races, games, or exhibitions have to be first approved by the Athletic Committee.

No student shall be eligible to a university team in case he owes money for his share of the training table expenses of a previous term. No interpretation of the rules shall permit a student to receive his board free at the training table.

No university team shall engage in any public contest on other than college grounds.

Team practice is not permitted during the vacation, except for ten days before the opening of the fall term.

IN the August number of the *Revue de Paris* there appeared an important paper on the place of mathematics in secondary education in France, in which the author, M. Tannery, complains that in France the sciences do not penetrate the system of secondary education, but are added to it like excrescences. The method of teaching them corresponds to no practical need and serves as no preparation for a career, but rather for examinations which must be passed in order to enter certain professions. M. Tannery declares that there are certain portions of mathematical science that take the place in the French democracy of those old heraldic quarterings of nobility, the possession of which in former days was really the sole qualification for state service. He does not suggest any palliatives—which he considers is the

business of specialists; but he asserts that the evil is due to a false conception, not only of secondary education itself, but of the part which the sciences ought to play in it. Secondary education ought to form young people for the work which is to occupy their life, and that work in the majority of cases will consist in directing, more or less immediately, the physical labor of other men. This power of direction can only be derived from science; whereas, M. Tannery complains, the whole tendency of teaching is towards the enjoyment and production of literary work. It must not be supposed that he ignores the value of mathematics as an intellectual discipline; he simply complains that the French *lycées* are constituted on the model of old ecclesiastical establishments dating from the time when there was no science except mathematics; but nowadays, when the development of the practical application of scientific truths cannot fail to bring a rapid change in the distribution of wealth, and is even certain to become itself the principal source of wealth, it is obvious that the wise teaching of science becomes a social question of the first importance. M. Tannery evidently thinks that the future progress of France, both in the moral and in the economic spheres, is bound up in no small degree in this question of the reform of teaching methods. We are indebted to the *Review of Reviews* for this interesting summary.

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CHEMISTRY IN THE HIGH SCHOOL.<sup>1</sup>

G. O. HIGLEY, University of Michigan: Examinations for admissions to the university reveal several somewhat common faults in the prevalent methods of teaching chemistry in the high schools.

1. Undue stress is laid upon theory, especially that of valence. It is to be feared that in some schools the valence of the elements is one of the first things taught. Certain it is, that students who are perfectly familiar with the valence of many elements and are able to write correctly the formulæ of the salts, have no adequate conception of the volumetric or gravimetric composition of the simplest compound nor of the broad experimental basis upon which the theory of valence rests.

2. As a rule the high-school student employs the chemical symbols only as convenient substitutes for the names of the substances which they represent.  $\text{HCl}$  means, apparently, an indefinite quantity of hydrochloric acid, not one molecule, composed of one atom of hydrogen taken as one, combined with one atom or 35.5 parts of chlorine. High-school chemical laboratory notebooks presented at the university are, almost without exception, faulty in this respect.

3. In some high schools the course in chemistry is improperly planned in that qualitative analysis, a branch of applied chemistry, is entered upon before the student has received adequate preparation in general chemistry.

4. Again, an insufficient amount of systematic work is laid out, or the student is not held strictly to his task. As a result the student drifts from one thing to another, often undertaking work which he cannot possibly comprehend and which does him more harm than good. A notable case of this kind is that of high school in this state, in which the student was permitted to finish off a course in general chemistry and qualitative analysis with a course in the detection of brucine, strychnine, and other alkaloids.

E. T. AUSTIN, Saginaw: The writer of the paper has given us a very full outline of a course in chemistry. He has left very little to be added in the way of subjects to be treated. It would take, however, a much better equipped laboratory than is to be found in the average high school, and a year's very close work to do what he has suggested. Many of the experiments cannot be satisfactorily done by the pupils, and with the teacher would require very careful manipulation.

Chemistry should follow physics for the reasons given in the paper. Chemistry will not elucidate many topics of physics, but on the other hand, physics is almost indispensable to chemistry. The chief reason assigned for putting physics in the last year of the high school is that the subject requires as complete a course in mathematics as possible. While this reason should be considered, it seems to me to be far outweighed by the reason given in the paper for the other plan. Many of the phenomena of physics are already in the possession of the pupils, or are readily observed. His work in botany and physical geography has trained his powers of observation.

I am in accord with the paper in contending that the methods or processes involved are of far more importance than learning facts, or gaining mere

<sup>1</sup> Michigan Schoolmasters' Club — See SCHOOL REVIEW, April 1899.

information. It is interesting to know many of the facts concerning the rarer elements, to know that phosphine will explode spontaneously when brought in contact with the air, but it seems to me these things have little educational value. Fewer experiments chosen for the principle involved, and fully discussed at the close of the laboratory period, are worth more than a larger number without the discussion. The power to apply principles is something of which the high-school pupil is sadly in need.

A phase of the question not considered in the paper which seems to me should come in for some consideration, is the presenting of the subject in such a way as to satisfy some of the practical demands of the times. While the demand for the "practical" in education may be unpractical, still I believe chemistry may be considered in such a way as to make our pupils more in love with the work of everyday life. I would not take anything from the college requirements in chemistry, for I think they are not too high, but we could leave out some portions that are not essential or extend the course so as to include the chemistry of cooking. The chemistry of cooking involves many of the principles developed in the chemistry course as now taught. Work of this kind never fails to arouse and hold interest. The knowledge of the action of yeast and baking compounds, and that certain foods contain particular nutritive elements, is of the greatest practical value to the welfare of the community.

D. M. LICHTY, Ann Arbor: While I agree with Mr. Putnam that it is desirable that the high-school course in chemistry should contain experiments which are intended to show the volumetric composition of water,

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## NOTES

hydrochloric acid, ammonia, ammonium chloride, etc., I seriously doubt whether the experiments suggested to these ends can in every case be successfully performed by high-school students. The experience of both students and teachers in the university laboratory shows that the last three of the experiments mentioned are more liable to fail than to succeed in the hands of the beginner if performed as directed by Mr. Putnam. The results obtained in the second and third are nearly always very far from the truth. The sources of error in third the have not yet been located with such certainty that even the teacher may be able so to control it as to obtain reasonably good results.

These statements do not mean that good results cannot be obtained; for there are forms of apparatus which yield satisfactory data, but which are too complicated for the use of beginners.

While it appears that we should not expect the student to perform all these experiments, all for which there is appropriate apparatus at hand should be performed by the teacher, because they prove or illustrate facts which are fundamental in the science of chemistry.

As already pointed out, the cause of failure is not always known. I think in many cases it is due to the fact that the student's limited experience makes it difficult, if not impossible, for him to appreciate the difficulties of the experiment or the nature and location of the sources of error. The objection to having students go over an experiment four or five times to get one accurate result, lies in the liability that they may conclude that chemical reactions are a matter of chance.

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## NOTES

These remarks I have made because I believe that it is right that high-school teachers should know that some of the experiments which they are often asked to include in their laboratory list, are not eminently successful when they are tried where they are advocated or where their form originated, as the case may be.

B. W. PEET, Ann Arbor: I was very much interested in Mr. Austin's remarks in regard to making chemistry more practical in the high school. I am often confronted with the question; "Of what value is chemistry to me? I never expect to be a chemist or clerk in a drug store." I usually answer the question by comparing the subject with other studies, by showing the pupil what faculties of the mind are developed, and what train of thought the subject leads to, but I believe that chemistry can be made more practical and not interfere with the subject from a scientific standpoint. I have had my pupils perform experiments illustrating the action of yeast, and digestion of food, and found that it added interest.

The idea of introducing as many quantitative experiments as possible in a high-school course is a good one, but our college men and professors who write text-books for us fail to realize the conditions of the ordinary high school. Economy in the laboratory is of more importance in the eyes of the average school board than the way the subject is taught. So in making out a list of quantitative experiments I would suggest keeping in mind the idea of inexpensive apparatus at all times.

The question of placing physics before chemistry, like Banquo's ghost, again appears. Of course, we chemistry men all agree that physics should precede chemistry, but since physics is required in all courses in the high-school curriculum and is generally considered of more general value to the average pupil, we must teach the subject with the pupils having little, if any, knowledge of physics. I find it necessary to teach a great deal of physics in connection with chemistry. My experience has been that pupils will never grasp the true meaning of specific gravity until they have actually performed an experiment to illustrate it. So, also, I find it necessary to explain boiling-point, melting-point, specific heat, the action of the battery, etc. If we are compelled to teach chemistry before physics I believe it is essential to teach a little physics in connection with chemistry, but I believe that a satisfactory course can be arranged so that physics will precede chemistry and be satisfactory to the physics teacher, pupil, and all concerned.

SAMUEL E. SWARTZ, Ph.D., has been elected to the principalship of the Broadbes Classical and Scientific Institute, Clarksburg, W. Va.

THE *Addresses and Proceedings of the National Educational Association*, held in Los Angeles for the year 1899, have just been issued from the University of Chicago Press. The book contains 1258 pages, is neatly printed on a good quality of book paper and presents a very attractive appearance. The binding corresponds with that of the two preceding years, which were printed by the same concern. A complete report of the proceedings including all of the addresses in full make the publication a valuable one to those interested in the workings of the association. Some other interesting statistics regarding membership appear in tabulated form in the back of the book. The total membership of the association now stands at 13,656, and the membership from the various sections of the country, according to this tabulation, is as follows:

North Atlantic Division	-	-	-	-	-	-	1877
South Atlantic Division	-	-	-	-	-	-	361
South Central Division	-	-	-	-	-	-	818
North Central Division	-	-	-	-	-	-	5074
Western Division	-	-	-	-	-	-	5487
Foreign	-	-	-	-	-	-	39

[illegible]

**CHILD INSTINCTS AND READING.**—The love of good literature may be developed early through story telling, and reading aloud, and one of the strict requirements for parenthood should be the ability to tell a story in a way to make a clear point, and leave a decided impression. To develop a love of good reading, we must not only set an example, and begin early, but we must enter so sympathetically into youthful tastes and standards that we can start from the child's actual interest rather than from what we think he ought to be interested in. Some little boys in a New York school, at the age when the collecting instinct is strong, formed a unique club for collecting the dirty stubs of street car tickets which the conductors throw on the ground. One boy's mother forbade it at once, with the result that he collected on the sly, and hid the stubs in the basement. Another mother, equally disgusted with the dirty stubs which filled her son's desk, and with the way he went along the street with eyes for nothing but stubs, took an entirely different course. She started from stubs, a worthless interest, and led him off into stamps, a useful interest. First, by suggesting that transfers were much more interesting than stubs, she led him to study the transfers and their meaning, till he could tell every cross-town line from 125th street to the Battery, and became absorbingly interested in the geography of New York. Upon the transfer interest it was easy to graft the postage-stamp interest, from which in turn sprang a whole bunch of interests, geographical, historical, ethnological.—From "To Interest Children in Good Reading." By ANTOINETTE B. HERVEY. *The Chautauquan* for January.

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THERE are some people who carry the principle of taxation without representation to such an absurd extent of misinterpretation that they are reluctant to pay their school taxes because they have no children in attendance at the public schools. Their antipathy seems to be especially directed against the high schools, which, they claim, are patronized principally by the children of the wealthy. A short time ago the question was raised in a large western city as to the advisability of closing the high schools in order to keep the expenditures for the schools of the city within the appropriations, and in view of some complaint that only the children of the rich received instructions there. An investigation was begun as to the character of the students in the high schools of the city, and the allegations of the opponents of these schools were entirely refuted. In one school where it was naturally inferred that the children of the rich would be in the majority, it was found that 190 of the students were the children of mechanics, 237 the children of clerks and salesmen, and 200 the children of laborers and miscellaneous workmen. The inquiry spread further, and in another large city it was found that the children of mechanics and railroad men predominate in one school, and in another which has been attacked repeatedly as "an expensive luxury," 157 of its 335 students are children whose parents are wage and salary earners—over 46 per cent. of the entire enrollment. These results are most gratifying as showing that the benefits of higher education are appreciated by many who are in humble or moderate circumstances, and that without the coöperation of the state these advantages would not accrue to thousands of young men and women who are most in need of them.—From "Highways and Byways," in *The Chautauquan* for January.

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1. "I *come* home early yesterday." (A school supervisor in Massachusetts.) (Corrected in the next breath.)

2. "I wouldn't if I were *him*." (A school supervisor in Massachusetts.)

3. "Any person could do it if *they* wanted to." (A school supervisor in Massachusetts.)

4. (a) "Be sure *and* return the mortars *just where* you found them." (Professor of chemistry.) (b) "It would be hopeless to try *and* guess." (College professor of literature.)

5. "You didn't have nearly *as* much as I." (Kindergarten teacher.) (Not a serious mistake.)

6. (a) "My test-tube *don't* break." (Two kindergarten teachers.) (b) "It *don't* make any difference." (College professor of rhetoric.) (c) "It *don't* pay." (College professor of political economy.)

7. "The way I knew it was *her* was by her hat." (College professor of philosophy.)

8. "I don't know which I like the best of the two." (School supervisor, Principal of a school.)

9. "I can't make it *without* I have the pattern." (Principal of a school.)

10. "You do it *like* I do." (Principal of a school.)

11. "How many cards *is* there here?" (Professor of pedagogy.)

12. "Do you admire *these* kind?" (Teacher of English with the degree of M.A.)

13. "If you like it *like* you like the man you marry." (College graduate, once a teacher.)

14. "*Your's* truly." (One of the best known women essayists in the country.)

15. "Goin' and comin'." (Professor in Harvard University.)

16. "The book was *laying* on the table." (English teacher.)

17. "It seemed best to have my name dropped from membership for remainder of year."

18. "Since I have been and shall *un*able to attend any of the meetings."

19. "I find my time *to* fully occupied."

— From "Linguistic Conscience." By CAROLYN SHIPMAN. *The Chautauquan* for January.

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## NOTES

WE approach Tacitus with respect, says James Ford Rhodes in the February *Atlantic*. We rise from reading his annals, his history, and Germany, with reverence. We know that we have been in the society of a gentleman who had a high standard of morality and honor. We feel that our guide was a serious student, a solid thinker, and a man of the world; that he expresses his opinions and delivers his judgments with a remarkable freedom from prejudice. He draws us to him with sympathy. He sounds the same mournful note which we detect in Thucydides. Tacitus deplores the folly and dissoluteness of the rulers of his nation; he bewails the misfortunes of his country. The merits we ascribe to Thucydides, diligence, accuracy, love of truth, impartiality, are his. The desire to quote from Tacitus is irresistible. "The more I meditate, he writes, "on the events of modern and ancient times, the more I am struck with the capricious uncertainty which mocks the calculations of men in all their transactions." From a thinker who deemed the time "out of joint," as Tacitus obviously did, and who, had he not possessed great strength of mind and character, might have lapsed into a gloomy pessimism, what noble words are these: "This I regard as history's highest function, to let no worthy action be uncommemorated, and to hold out the reprobation of posterity as a terror to evil words and deeds." The modesty of the Roman is fascinating. "Much of what I have related," he says, "and shall have to relate, may perhaps, I am aware, seem petty trifles to record. . . . My labors are circumscribed and unproductive of renown to the author."

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## NOTES

**INDUSTRIAL TRAINING.**—The spring meeting of the Northern Illinois Teachers' Association will be held at Aurora, beginning Thursday evening, April 26, and continuing until Saturday noon, April 28. The general subject for discussion is, "Industrial Training as a Factor in Education." Officers: Superintendent I. F. Edwards, of Amboy, president; Mrs. Ella F. Young, University of Chicago, vice president; Miss Mary R. Potter, Northern Illinois Normal School, DeKalb, secretary; Superintendent W. J. Sutherland, Oregon, treasurer; Superintendent C. F. Philbrook, Rochelle, railroad secretary. Executive committee: William J. Cox, Moline; Miss Emma A. Ford, Aurora; Superintendent W. R. Foster, Mendota.

The first session will be a Round-Table Meeting, Thursday evening, April 26, at the West Aurora High School, under the leadership of Superintendent F. U. White, of Galva. The topics for discussion at the Round-Table Meeting are: (1) "The Place and Value of Commercial Branches," (2) "The Relation of Drawing and Manual Training to Arithmetic, Language, and Geography." The first topic will be opened by Principal W. F. Cadwell, of Brown's Business College, Galesburg, and Superintendent A. W. Hussey, of Geneseo; the second topic, by Professor Ira M. Carley, of Chicago Normal School, and Superintendent A. C. Butler, of Kewanee. It is hoped that the general discussion will be entirely informal, vigorous, and helpful.

General session, Friday forenoon, April 27, New England Congregational Church, West Aurora. Program: "Constructive Work in Public Schools" will be the theme for discussion at the general session, beginning, at 9:00 o'clock Friday, April 27. The speakers who will discuss this subject at length are Professor Charles A. Bennett, Director Manual Training Department of Bradley Polytechnic Institute, Peoria; and Supervisor Robert M. Smith, of the Manual Training Work in Chicago City Schools. The general discussion will be opened by Miss Flora Wilber, Principal of Teachers' Training School, Moline.

### SECTION MEETINGS, EAST AURORA, FRIDAY, APRIL 27, 2:00 P. M.

The programs for the section meetings are not all completed at the time this preliminary announcement goes to press, but the following data received from the chairmen of the respective sections will indicate some of the timely and interesting topics selected for discussion.

County Superintendent's session: Room A, High School Building, East Aurora. Chairman, Superintendent U. J. Hoffman, Ottawa. Topics for Round-Table discussion: "Our School Revenues. (1) Inequality and Ineffectiveness of the Present System of Raising Funds. (2) Desirability of a \$5,000,000 State Appropriation. (3) Desirability of a County School Tax." County superintendents are requested to come prepared to discuss Professor David Felmly's address on this subject, delivered before the Central Illinois Association.

Primary: First M. E. Church. Chairman, Miss Lucia J. Lawless, Moline. Program: "How to Interest Little People," Miss Elizabeth Egan, Rock Island; "School-Room Art and Decoration," Miss Emily Bracken, West Aurora; "Constructive Work in Primary Grades," Supervisor Robert M. Smith, Chicago, and Professor J. Liberty Tadd, Philadelphia.

Intermediate: Congregational Church, corner Main street and East Park place. Chairman, Miss Cleora A. Worth, Aurora. Program: Paper—"Arithmetic in Intermediate Grades," Superintendent C. E. Mann, St. Charles. Questions and general discussion open to all. Paper—"How to bring about

a More Even Adjustment of Emphasis in Geography Work," Professor John A. Keith, Northern Illinois Normal School, DeKalb. Discussion — Superintendent John A. Allison, Joliet, and Dr. Charles A. McMurry, Northern Illinois Normal School, DeKalb.

Grammar: People's Church, corner Main street and South Lincoln avenue. Chairman, Miss Jenny W. Clute, Kankakee. Program: "How may the Study of English be made more Practical?" "Is Industrial Training an Economic Possibility in Small Towns?" Mr. Louis R. Abbott, Supervisor of Manual Training, Moline. "Better Training in Geography for Commercial and Industrial Life."

High School: Clark Hall, High School Building. Chairman, Mr. J. Stanley Brown, Principal Township High School, Joliet. Program: "Commercial Training in the Public High School." Principal J. E. Cable, Harvey. (1) From the pupil's point of view, Mr. A. H. Sproul, Commercial Department, Elgin High School. (2) From the high-school teacher's point of view, Mr. N. B. VanMatre, Commercial Department of the Township High School, LaSalle. (3) From the business man's point of view, Principal S. E. Raines, Freeport. (4) From the utilitarian's point of view, Mr. George W. Stroble, West Aurora High School.

Music: Park Place Baptist Church. Chairman, Miss Rose E. Judson, Supervisor of Music, Elgin.

President's address and evening lecture, April 17, First M. E. Church, East Aurora, 7:30 o'clock. Mr. William S. Mack of Aurora will give the address of welcome. The president's address, by Superintendent I. F. Edwards, of Amboy, and the lecture by Professor J. Liberty Tadd, Director of the Public Industrial Art School, Philadelphia, will be given at the First

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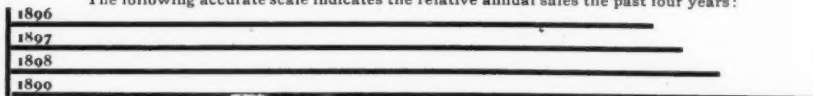
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Methodist Episcopal Church, East Aurora, Friday evening, April 27. The subject of the lecture is, "Art and True Manual Training."

General session, Saturday forenoon, April 28, First M. E. Church, corner Fox street and South Lincoln avenue, East Aurora. Program: "Industrial Training as a Social Factor," Professor F. A. Manny, Oshkosh (Wisconsin) Normal School. "Coordinate Training of Eye, Hand and Mind, from the Pedagogical Point of View," Dr. George Edgar Vincent, University of Chicago. General discussion opened by Miss Cora M. Hamilton. Principal Training Department, Pontiac High School. 11:00 A. M., business meeting of the association.

All of the schools included in the territory of the Northern Illinois Association are cordially invited to contribute to the exhibit of drawing, manual training, and all forms of constructive work, which we wish to present at this meeting. No restrictions or limitations will be placed upon the exhibitors other than the request to send samples of the regular school work in sufficient numbers to show its scope, character, and the average results obtained. In order to do this in the most satisfactory way, it is suggested that all the grades in which the work is taught should be represented, and that so far as may be possible the exercises of entire classes should be sent. Since it would be impossible to mount all of the work of entire classes, or to find wall space for such an extensive exhibit, the only feasible plan will be to mount only a sufficient number of pieces to make a representative exhibit, and place the unmounted pieces in a convenient place for examination by those who are specially interested. All work for this exhibit should be shipped, prepaid, not later than April 18, addressed to Superintendent C. M. Bardwell, Aurora, Ill.

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## NOTES

OUT-DOOR study and scientific investigation are now not only sanctioned but encouraged for both sexes and all ages. Society, the press, men of science and education endorse the movement. New York State appropriates \$35,000 a year to encourage it on farms and in the schools. Nature-study is a part of nearly every school curriculum. Yet, strange to say, there are only a few books published for children on these subjects, and not one periodical or department especially for and adapted to young naturalists. Several pages of *St. Nicholas* monthly will be devoted to this new department. Two of these will be given up to the out-door world; two more to in-door study and research, both in nature and science; one to correspondence from the children; and one to a department of "Questions and Answers," in which Mr. Bigelow will answer for the young folks in a brief and simple manner any questions that may be put to him in the course of their reading and investigation.

IMPORTANT CHANGE AT COLUMBIA COLLEGE.—The faculty of Columbia College in pursuance of the policy entered upon some time since, of making the relations between the secondary schools and the college as natural and as intimate as possible, have just announced a restatement of the requirements for admission to Columbia College. The faculty believe that this new statement of requirements solves the main difficulty which has hitherto confronted secondary-school work, namely, that of being compelled to distinguish early in the course, or indeed at its beginning, between those students intending to enter college and those students who have no such intention. It will hereafter be possible for the graduate of any substantial secondary-school course, non-classical as well as classical, to enter Columbia College without prejudice, and to proceed to the degree of Bachelor of Arts. This is accomplished by the simple device of removing Latin from the list of subjects prescribed for admission without removing it from the lists of subjects required for graduation with the degree of A.B. In other words, elementary Latin will hereafter be taught as a college subject, like elementary French, German, Physics, Chemistry, Zoölogy, or Botany, and must be taken in college by those students who are candidates for the A.B. degree, but who have not presented Latin at the time of entrance to college.

OUR quarters were of the simplest: two students had one room, with one bed, and there we lived and studied, says W. J. Stillman in the February *Atlantic*. At half past five the bell rang to wake us, and half an hour later for prayers, the sleepy ones returning to sleep after the waking bell and thrusting themselves into their clothes as they ran when the prayer bell rang, to get to prayers before the roll call was over. From prayers we again dispersed to the recitation rooms for the morning recitations, and then to breakfast, mostly in town. There were two boarding houses, one at each end of the college walk, known as North and South Halls, and forming part of the architectural scheme of the institution, and here board was provided at somewhat lower terms and very much inferior quality than that at the private boarding houses in town. The price at the halls was, if I remember correctly, \$1.25 a week, three meals a day, that in the town ranging from \$1.50 to \$1.75; furnished rooms in the town costing \$0.75 per week more, and a few favored or wealthier students had permission to room in them, but as a rule the undergraduates of Union were men of very limited means, on which account the president, Dr. Nott, had planned the arrangements to facilitate the attendance of that class of students, and the rules were such as to closely restrict the students from any participation in the social life of the townspeople.

## NOTES

I HAVE in the course of my life, says W. J. Stillman in the *Atlantic*, become more or less acquainted with many able men, and Dr. Nott was the most remarkable of all the teachers I have ever known, considering the limitation of his position and profession, that of a Presbyterian clergyman in a time when sectarian differences ran high, and his sect had no lead in public opinion. His own position, to which he had attained by the force of his character unaided by any patronage, in a time when institutions were forming and nothing was settled in the character of society—that is, the beginning of this century—was due to his extraordinary tact and eloquence. . . . No one but a pupil could ever have fairly estimated his force of character, and no pupil whose intercourse with him was not carried into the post-graduate years could measure the ability with which he advised, especially in political matters, with his old pupils. In the days of his activity no institution in the country furnished so large an element to the practical statesmanship of the United States as did Union. Seward was one of his favorite pupils, and it was well known that up to the period of the American Civil War he never took a step in politics without the advice of the doctor. . . . The doctor's reading of character and detective powers were barely short of the miraculous, and his management of refractory students became so well known that many who had been expelled from the other universities were sent to Union, and graduated with credit, so that the college acquired the nickname of "Botany Bay." . . . In entering the church, Dr. Nott had deprived the world of a statesman of no ordinary caliber; but in the eyes of the Protestant

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## SCHOOL SANITATION and DECORATION

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HENRY TURNER BAILEY, State Supervisor of Drawing in Massachusetts.

It is the purpose of this book to contribute to the forces which are coöperating to produce the crowning race in America—the race that shall have the piety so happily defined by Dr. W. T. Harris—"the piety not merely of the heart, but the piety of the intellect that beholds truth, the piety of the will that does good deeds wisely, the piety of the senses that sees the beautiful and realizes it in works of art."

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as of the Catholic church, in the country which had its precedents to make as in that which had precedents a thousand years old, the maxim, "Once a priest always a priest," kept him in the pulpit, to which he had no irresistible call, and to which the accident of his career only had led him. . . . In this insufficiency of interest for an active and influential life, there was only the educational calling left to satisfy his enormous mental activity, and in this he found his place. The future which may look for his record in libraries, or in the results of research, scientific or literary, will not find him to occupy a position. He had, however, great mechanical inventive powers, as well as a marvelous knowledge of human nature: the former solved the problem, amongst others, of anthracite-coal combustion for American steamers; in the latter lay his qualifications as the greatest teacher of young men of his generation.

PROFESSOR FISKE has undeniably earned a right to the title of dean of American historical writers. His large and important contribution to American history is to receive a valuable addition in a history of "The Mississippi Valley in the Civil War." The volume will be brought out in the spring by Houghton, Mifflin & Co. With the exception of a treatment of the Civil War, such as was necessary for his school history of the United States, the forthcoming volume marks his first entrance into this important field of historical research and writing. The struggle for the possession of the Mississippi Valley was a life-and-death struggle for the Confederacy, and its history in Mr. Fiske's hands should be of the utmost importance and interest.

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## NOTES

THE *Proceedings of the Department of Superintendence* of the National Educational Association, recently in session at Chicago, Ill., have just been issued. Among the articles of interest are: "The Status of Education at the Close of the Century," by Dr. Nicholas Murray Butler, of Columbia University, with discussion by President Eliot, of Harvard University, and Dr. Harris, Commissioner of Education of the United States; "Alcohol Physiology and Superintendence," by Professor W. O. Atwater, of Wesleyan University, Middletown, Conn., and the discussion by Superintendent Dutton, Mrs. Hunt, Professor Atwater and others. Both the discussion and the paper are printed in full. In the evening address of President E. A. Alderman, of the University of North Carolina, on the "Duties and Opportunities of Scholarship," may be found an interesting review of the condition and aims of higher education in the South and its relation to the solution of the social and educational problems of that section. The other papers will especially interest school superintendents.

Copies of the report may be obtained of Mr. Irwin Shepard, Winona, Minn., at 25 cents each.

THE following notice of free transportation in school work has an intimate connection with Mr. Corbett's article in this issue on *Free High Schools for Rural Pupils*.

A system of free school transportation has been in operation the past winter in several counties about Canton, O. Central township high schools have been provided, and wagons transport the children from the remote parts to and from school. Recently additions have been made to the "kid wagons," as they are called, in the way of covering of enameled cloth. Windows and doors are provided, and also stoves to keep the girls and boys warm. The driver has resolved himself into a mail carrier for residents along the route, and in this way a system of rural free delivery is maintained.

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READY IN JUNE

# Experimental Chemistry

FOR SCHOOLS AND COLLEGES

By LYMAN C. NEWELL, Ph.D., (Johns Hopkins).

This book presents a course in Chemistry in touch with the best scientific and pedagogical ideas. It contains about 200 experiments, cemented by enough explanatory text to make the work logical, systematic and intelligent. About twenty of the experiments are quantitative. About 300 problems are distributed at proper points throughout the text. The theory of chemistry is adequately treated. The book is profusely illustrated with diagrams and engravings especially prepared. Cloth. About 400 pages.

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# A History of American Literature

FOR SCHOOLS AND COLLEGES

By WALTER C. BRONSON, A.M., Professor of English Literature, Brown University.

A scholarly and attractive book adapted to the practical work of the class room, yet literary in spirit and execution, offering an accurate and stimulating guide to the study of literature itself. It is characterized by breadth of view and sympathetic insight. The appendix contains nearly forty pages of extracts from the greater but less accessible colonial writers. Cloth. About 400 pages.

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These books will be published before July 1st. No teacher can afford to recommend the adoption of a new text in Chemistry or in American Literature without learning full particulars concerning their merits. *Correspondence invited.*

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UNDERNEATH all our modern machine work there must lie the same quality upon which the scholar of the earlier generation exclusively relied, says Professor Ephraim Emerton in the June *Atlantic*. He had no training by any organization whatever. If he were trained at all, he trained himself. He came to be what he has by virtue of the inner impulse which alone, maintained through years of action and intensified by time, can guarantee the quality of man.

Obviously this quality is difficult to describe. It cannot be measured in terms of academic honors. Erasmus, of Rotterdam, explaining why he felt obliged to take a doctor's degree in Italy, says: "Formerly a man was called 'doctor' because he was a learned man; but nowadays no one will believe a man is learned unless he is called 'doctor.'" A college president seeking a professor not long since made it a *sine qua non* that the candidate should be a doctor of philosophy. Another man might know more, be more highly qualified as a man, and a more effective teacher, but he must give way to the man, very possibly of less value, who had the trade-mark of his profession. I have known many a man whose great fundamental need was intellectual refinement and culture sacrificed to this semi-civilized demand for a certifiable kind of expert training.

MESSRS. D. C. HEATH & Co., publishers, Boston, have recently awarded to students of the Boston Art Student's Association; the School of Drawing and Painting of the Museum of Fine Arts; and the Cowles Art School, prizes for a book cover design for their new series of Home and School Classics, of which the initial number will shortly appear.

The first prize, for the design which most artistically embodied the ideas conveyed in the title and the scope of the series, was awarded to Miss M. Shuebruk, of 44 Virginia st., Dorchester. The second prizes for the Boston Art Student's Association was awarded to Miss L. A. Foster, 5 Howland st., Roxbury.

Of the Cowles Art School students, Miss Mabel Harlow was awarded the prize, and of the School of Drawing and Painting, Museum of fine Arts, two students were awarded prizes—Miss K. E. Bacon, and Miss Mary E. Chamberlain.

## New Volume in Longmans' English Classics

**Shakspere's Julius Cæsar.** Edited, with introduction and notes, by GEORGE C. D. ODELL, Ph.D., Tutor in Rhetoric and English Composition in Columbia University. With Portrait. Cloth, 50 cents; Boards, 40 cents.

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### *Books Prescribed for the 1901 Examinations*

#### FOR STUDY AND PRACTICE

**Burke's Speech on Conciliation With America.** Edited, with Introduction and Notes, by ALBERT S. COOK, Ph.D., L.H.D., Professor of the English Language and Literature in Yale University. With Portrait of Burke. Cloth, 50 cents; Boards, 35 cents.

**Macaulay's Essays on Milton and Addison.** Edited, with Introduction and Notes, by JAMES GREENLEAF CROWELL, A.B., Head Master of the Brearley School, New York. With Portrait. Cloth, 60 cents; Boards, 50 cents.

**Shakspere's Macbeth.** Edited, with Introduction and Notes, by JOHN MATTHEWS MANLY, Ph.D., Professor of English in the University of Chicago. With Portrait. Cloth, 50 cents; Boards, 40 cents.

**Milton's Lycidas, Comus, L'Allegro, and Il Penseroso.** Edited, with Introductions and Notes, by WILLIAM P. TRENT, A.M., Professor of English in the University of the South. With Portrait of Milton. Cloth, 60 cents; Boards, 50 cents.

The prices named in this list are retail. Special terms for class introduction, and discounts for regular supplies, will be furnished to any teacher upon request.

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## NOTES

### NATIONAL EDUCATIONAL ASSOCIATION

In accordance with established custom, and in order better to enforce those beliefs and practices which tend most powerfully to advance the cause of popular education and a civilization based on intelligent democracy, the National Educational Association, assembled in its thirty-ninth annual meeting makes this

#### DECLARATION OF PRINCIPLES

The common school is the highest hope of the nation. In developing character, in training intelligence, in diffusing information, its influence is incalculable. In last resort the common school rests not upon statutory support, but upon the convictions and affections of the American people. It seeks not to cast the youth of the country in a common mold, but rather to afford free play for individuality and for local needs and aims, while keeping steadily in view the common purpose of all education. In this respect it conforms to our political ideals and to our political organization, which bind together self-governing states in a nation, wherein each locality must bear the responsibility for those things which most concern its welfare and its comfort. A safe motto for the school as for the state is: In essentials, unity; in non-essentials, liberty; in all things, charity.

A democracy provides for the education of all its children. To regard the common schools as schools for the unfortunate and the less well-to-do, and to treat them as such, is to strike a fatal blow at their efficiency and at democratic institutions; it is to build up class distinctions which have no proper place on American soil. The purpose of the American common school is to attract and to instruct the rich, as well as to provide for and to educate the poor. Within its walls American citizens are made, and no person can safely be excluded from its benefits.

What has served the people of the United States so well should be promptly placed at the service of those who, by the fortunes of war, have become our wards. The extension of the American common-school system to Cuba, Porto Rico, and the Philippine Islands is an imperative necessity, in order that knowledge may be generally diffused therein, and that the foundations of social order and effective local self-government may be laid in popular intelligence and morality.

The provisions of law for the civil government of Porto Rico indicate that it is the intention of the Congress of the United States to increase the responsibilities of the Bureau of Education. We earnestly urge upon the Congress the wisdom and advisability of reorganizing the Bureau of Education upon broader lines; of erecting it into an independent department on a plane with the Department of Labor; of providing a proper compensation for the Commissioner of Education; and of so constituting the Department of Education that while its invaluable function of collating and diffusing information be in no wise impaired, it may be equipped to exercise effective oversight of the educational systems of Alaska and of the several islands now dependent upon us, as well as to make some provision for the education of the children of the tens of thousands of white people domiciled in the Indian Territory, but who are without any educational opportunities whatever. Such reorganization of the Bureau of Education and such extension of its functions we believe to be demanded by the highest interests of the people of the

## NOTES

United States, and we respectfully but earnestly ask the Congress to make provision for such reorganization and extension at their next session. The action so strongly recommended will in no respect contravene the principle that it is one of the recognized functions of the national government to encourage and to aid, but not to control, the educational instrumentalities of the country.

We note with satisfaction the rapid extension of provision for adequate secondary and higher education, as well as for technical, industrial and commercial training. National prosperity and our economic welfare in the years to come will depend in no small measure upon the trained skill of our people, as well as upon their inventiveness, their persistence, and their general information.

Every safeguard thrown about the profession of teaching, and every provision for its proper compensation, has our cordial approval. Proper standards—both general and professional—for entrance upon the work of instruction, security of tenure, decent salaries, and a systematic pension system, are indispensable if the schools are to attract and to hold the service of the best men and women of the United States; and the nation can afford to place its children in the care of none but the best.

We welcome the tendency on the part of colleges and scientific schools to cooperate in formulating and administering the requirements for admission to their several courses of instruction, and we rejoice that this association has consistently thrown its influence in favor of this policy, and has indicated how, in our judgment, it may best be entered upon. We see in this movement a most important step toward lightening the burdens which now rest upon so many secondary schools, and are confident that only good results will follow its success.

The efficiency of a school system is to be judged by the character and the intellectual power of its pupils, and not by their ability to meet a series of technical tests. The place of the formal examination in education is distinctly subordinate to that of teaching, and its use as the sole test of teaching is unjustifiable.

We renew our pledge to carry on the work of education entrusted to us in a spirit which shall be not only non-sectarian and non-political, but which shall accord with the highest ideals of our national life and character. With the continued and effective support of public opinion and of the press for the work of the schools, higher and lower alike, we shall enter upon the new century with the high hope born of successful experience and of perfect confidence in American policies and institutions.

NICHOLAS MURRAY BUTLER, New York, *Chairman*.  
EDWIN A. ALDERMAN, Louisiana,  
CHARLES D. McIVER, North Carolina,  
WM. B. POWELL, District of Columbia,  
ALFRED BAYLISS, Illinois,  
JAMES H. FOSHAY, California,  
JAMES H. VAN SICKLE, Maryland,  
WILLIAM R. HARPER, Illinois,  
CHARLES F. THWING, Ohio,

*Committee on Resolutions.*

## NATIONAL EDUCATIONAL ASSOCIATION

WINONA, MINN., August 1, 1900

### CIRCULAR OF INFORMATION

#### *To Active Members:*

Attention is called to the following amendments to the constitution enacted at the Charleston meeting. These amendments make no essential changes in the constitution, but were passed in order to remove obscurity of language on the points in question, viz.:

## NOTES

In Article III, Section 3, there is added to the first paragraph the following:

Active members only have the right to vote and to hold office in the general association or in the several departments.

In the second paragraph the second sentence is amended to read:

The annual (active) membership fee shall be payable at the time of the annual convention or by remittance to the secretary before September 1 of each year. Any active member may discontinue membership by giving written notice to the secretary before September 1 and may restore the same only on payment of the enrollment fee and the annual dues for the current year.

The effect of the latter amendment is to make clear the provision that active (permanent) membership will be regarded as continuing unless written notice to the contrary is sent to the secretary before September 1 of the year for which it is desired that discontinuance should apply.

The Charleston meeting was in every respect successful excepting in point of numbers attending, and the volume of proceedings will be of special interest and value to those who were unable to attend.

The enrollment for the Charleston meeting to date, including advance memberships, is 2815; of this number 546 are active members and 2269 associate members. This enrollment is distributed as follows:

	Active	Associate	Total
North Atlantic states - - - - -	114	160	274
South Atlantic states - - - - -	82	850	932
South Central states - - - - -	68	373	441
North Central states - - - - -	247	820	1,067
Western states - - - - -	35	66	101
Total - - - - -	546	2,269	2,815

### TWO NEW BOOKS

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This book presents a course in Chemistry in touch with the best scientific and pedagogical ideas and meeting the new Regents' requirements. It contains about 200 experiments, cemented by enough explanatory text to make the work logical, systematic and intelligent. About twenty of the experiments are quantitative. About 300 problems are distributed at proper points throughout the text. The theory of chemistry is adequately treated. The book is profusely illustrated with diagrams and engravings especially prepared. Cloth. 410 pages. Price, \$1.10.

## A History of American Literature

FOR SCHOOLS AND COLLEGES

By WALTER C. BRONSON, A.M., Professor of English Literature, Brown University.

A scholarly and attractive book adapted to the practical work of the class room, yet literary in spirit and execution, offering an accurate and stimulating guide to the study of literature itself. It is characterized by breadth of view and sympathetic insight. The appendix contains nearly forty pages of extracts from the greater but less accessible colonial writers. Cloth. 16mo. 374 pages. Price, 80 cents.

No teacher can afford to recommend the adoption of a new text in Chemistry or in American Literature without learning full particulars concerning the merits of these books. *Correspondence invited.*

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## NOTES

The state of South Carolina furnished 673 members. The five states outside of South Carolina furnishing the largest attendance are: Illinois, 348; Ohio, 149; Georgia, 128; New York, 107; Indiana, 106; Missouri, 104.

It is worthy of note that there were 546 active members enrolled at the Charleston meeting in a total of 2815, while at the Los Angeles meeting in 1899 but 530 active members enrolled in an attendance of 11,544.

To the total enrolled at Charleston should be added 1800 active members not present whose dues will be paid, bringing the total enrollment for the year up to, approximately, 4600. Some increase of this total may be expected from additional new active and associate memberships which will be received before the annual volume goes to press.

All active members are urged to cooperate in increasing the membership, especially the active membership, among their associates, also in extending the circulation of the special committee reports which will be furnished at the prices named on the inclosed order card.

Attention is also called to the volumes of Proceedings of the World's Congresses of Education, 1893, Chicago, and of the Los Angeles meeting, 1899. These are volumes of special value and an extra edition of each has been published for sale at a nominal price.

All active members and others having files of the volumes of Proceedings should obtain the Index volume which covers all publications of the association for forty years, from 1857 to 1897.

A limited number of sets of back volumes, and single volumes to complete sets, can be obtained at very low rates; price lists will be sent upon application.

A copy of the Declaration of Principles adopted at the Charleston meeting is enclosed for your information, with the suggestion that it be brought to the attention of your fellow teachers and the people of your vicinity through the public press or in any other manner that you may deem expedient.

Sincerely yours,

IRWIN SHEPARD, *Secretary*

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#### ENGLISH COMPOSITION AND LITERATURE

By W. F. WEBSTER, Principal of the East High School, Minneapolis, Minn. Crown 8vo, half-leather, 301 pages. 90 cents, *net*.

The College Entrance Requirements Committee of the National Educational Association recommends in the report made by it at Los Angeles in July, 1899, a course of study, of which it says: "The main points are in accordance with the paper presented by Mr. Webster at Washington." This book is the development of the ideas contained in this paper. The Webster Course of Study calls for the study of literature and composition side by side for the entire course.

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# NOTES

MESSRS. HENRY HOLT & Co.'s preliminary fall announcement include: "Men of Marlowe's," by Mrs. Dudeney, author of "Folly Corner" (now in its third impression). This book consists of interrelated tales of the residents of one of the English "Inns," like "The Temple."—"A Short History of French Literature," by L. E. Kastner, of Cambridge, England, and H. G. Atkins, of the Royal Naval College. "The German and Swiss Settlements of Pennsylvania," by Professor L. Oscar Kuhns of Wesleyan University, whose sympathetic yet conservative introductions to "Cyrano de Bergerac," a volume of Musset, and other books, testify to his pleasing style. "A Source-Book of English History," containing leading documents from the earliest mention of Britain to the last treaty between the British and the Boers, besides a remarkably inclusive bibliography, and edited by Dr. Guy Carleton Lee, of Johns Hopkins, editor in chief of "The World's Orators." The first two volumes of "A History of Two Political Parties in the United States," by Professor J. P. Gordy, of the Ohio State University. "The Elements of Logic," by Professor Herbert A. Aikins, of Adelbert College, editor of "The Philosophy of Hume." "Byron's Selected Poems," edited by Dr. F. I. Carpenter, of Chicago University. "Swift: Prose Selections," edited by Professor F. C. Prescott, of Cornell. "Pope: Selections," edited by Dr. E. B. Reed, of Yale. "Pater: Selections," edited by Professor Edward Everett Hale, Jr., of Union College. "Thackeray's English Humorists," edited by Professor William Lyon Phelps, of Yale. "Macaulay's Essays on Milton and Addison," edited by J. A. Tufts, of Phillips Exeter Academy. "The Art of Debate," by Dr. R. M. Alden, of the University of Pennsylvania. "An Agricultural Botany" (theoretical and practical), by Professor John Percival, of the Southeastern Agricultural College of Wye, England: a comprehensive and fully illustrated text-book, suitable for practical farmers who have made no systematic study of botany. "The Anatomy of the Cat," by Professor Jacob E. Reighard and Dr. Herbert S. Jennings, both of the University of Michigan. "A Manual of the Flora of the Northern States and Canada," by Professor N. L. Britton, director of the New York Botanical Garden. "Schenck and Gürber's Human Physiology," translated by W. D. Zoethout, with a preface by Professor Jacques Loeb, of Chicago University. "A French and English Dictionary," with pronunciation, etymologies, etc., by Professor A. Hjalmar Edgren and Percy B. Burnet (about 1000 pages). "The Seventeenth Century in France," historical selections in French from well-known authors, compiled and edited by H. Isabelle Williams and Delphine Duval, of Smith College. Dumas' "Le Comte de Monte-Cristo," abridged and edited by Professor E. E. Brandon, of Miami University. Dumas' "La Tulipe Noire," edited for elementary students, by Professor Edwin S. Lewis, of Princeton. "Histoire de France," adapted from Ducoudray et Feillet, by Professor O. B. Super, of Dickinson College. "French Prose Composition," by Professor J. H. Cameron, of the University of Toronto. Goethe's "Egmont," edited by Professor R. W. Deering, of Adelbert. "The Elements of German," by Dr. H. C. Bierwith, of Harvard. "Keller's Legendes," edited by Professors Carla Wenckebach and Margarethe Müller, of Wellesley. Seidel's "Wintermärchen," edited by Corinth L. Crook. Schiller's "Die Jungfrau von Orleans" and "Maria Stuart," both with complete vocabularies, by Dr. W. H. Hervey, of Columbia. "An elementary Spanish Text-Book," by Professor M. N. Ramsey, author of "A Text-Book of Modern Spanish." Tirso de Molina's "Don Gil de las Calzas Verdes," edited by Dr. B. P. Bourland, of the University of Michigan.

## NOTES

THE *New York Times*' correspondent sends to his journal the following interesting description of the great Textile School in Vienna:

The number of technical schools in this country is considerable, and it is at least equaled by their excellence; the training they afford is very good. Naturally, not all of them are of the same grade, but some can boast of a very comprehensive curriculum, as is the case with the *Lehranstalt für Textilindustrie* at Bruenn, which, like almost all the good educational establishments in Austria, is a state institution.

The latest report shows the school is divided into the following branches: School of Textile Industry; School of Spinning, Weaving, and Dressing; Foremen; Classes for Knotting, Burling, etc. Evening Continuation School for Spinners, Weavers, and Burlers, and the Experimental Institute. The course of instruction in the main branch lasts four years, and it is intended to give the pupils such a technical training, and impart to them such general knowledge, as shall enable them to run weaving mills, or to fill the post of manager at such mills, wool weaving being the principal object kept in view. This is only natural of a school situated at Bruenn, the chief center of the cloth manufacture in this country, a town not inappropriately called "the Austrian Bradford."

In the Foremen's School instruction lasts a year and a half; the classes for knotting, etc., last two or ten months, according to the subject; while in the fourth department, a night school for those already earning a living by weaving, spinning, or dressing, there is one year of seven months in each department. Candidates for admission to regular full curriculum must have passed through eight classes of a public elementary school, or submit themselves to an equivalent examination. Besides this, however, every candidate for admission must pass the entrance examination in physics, mathematics, and geometry.

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## NOTES

The fees are quite moderate, namely, for Austrians and Hungarians, \$20.50; for foreigners the fee is \$61.50; \$2.33 for the use of the apparatus, and from the beginning of the second year a further \$2.33 for the use of the laboratory. This school ranks so high that it confers on those who attend its entire curriculum the right to serve only one year in the army, instead of three; just like, among others, those who have studied at a grammar school for eight years.

The course of instruction comprises the German language, history, geography, and geometry, mathematics, chemistry, drawing, mercantile arithmetic, business correspondence, and bookkeeping, besides different branches of spinning and weaving, together with a knowledge of the materials and the machines used. During the first year every pupil has to attend forty lessons a week, and forty-four during the other four years, which latter is the number also in the school for foremen as well as the classes for female knotters, burlers, and sewers.

From the above it will be seen that the course of instruction at this large educational institute is very extensive. This Imperial and Royal Educational Institute for Textile Industry in Bruenn, to give it its full name, is the highest grade-school in that branch in this monarchy.

THE third edition of "The Web of Life" is on the press. While the people of Chicago have resented the use which Mr. Robert Herrick has made of them as "dramatis personæ" the general impression is that he has given a close description of American ideals as exemplified by a certain class of prosperous western people. It is perhaps natural that critics on the Atlantic coast are jubilant over Mr. Herrick's story, and this may possibly be the cause of the Chicagoan's resentment. The Macmillan Company have in hand also a fourth edition of William Stearns Davis' "A Friend of Cæsar." It is very seldom that a book by an entirely unknown writer achieves such a success in so short a time. It is now well on its way toward its tenth thousand, and is being dramatized by a well-known playwright.

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## ANNOUNCE

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## NOTES

PROFESSOR HART, of Harvard University, has contributed a very readable essay on the "American School of Historians" to *The International Monthly* for September. He sums up the periods of activity in the following paragraph:

Looking over the whole field of American historiography, it is easy to recognize a succession of literary impulses; first come the narratives of such discoverers and explorers as Champlain, written with many different purposes, but much alike in the freshness and life which they put into their story. A few years later, in the middle half of the seventeenth century, arose a group of writers of whom Winthrop is a type, builders of commonwealths, who have left us a heritage of wisdom on the conditions of colonization. About the beginning of the eighteenth century we find conscious historians piecing together traditions and records, and trying to see the meaning and proportions of previous events; they reach from Cotton Mather to Hutchinson. Just after the Revolution a new, national self-consciousness led to several efforts to tell at some length the history of that great struggle. The beginnings of the literary period of American history, about 1830, included new and ambitious attempts to compress the whole history of the country into one systematic work; in this period George Bancroft's is the most significant name. Since the Civil War a new school of historians has arisen, for the most part choosing limited pens and creating them intensively; of these Henry Adams is a type.

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## NOTES

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D. C. HEATH & COMPANY announce an edition of *Schiller's William Tell*, by Professor R. W. Deering, of Western Reserve University, and they also announce an extensive series of books for young children, entitled *Home and School Classics*. These are divided into two sections, one for smaller children and one for youth. They will be published fortnightly, and the yearly subscription for twenty-four single numbers will be \$2.50. *Episodes from Dumas' Monte Cristo*, by Professor Spiers, of the William Penn Charter School, and *Free Hand and Apparatus Gymnastics*, by Miss Jessie H. Bancroft, are also among the books which this house has recently published.

THE MACMILLAN COMPANY announce the early publication of a new novel by Maurice Hewlett, entitled *Richard Yea and Nay*; also *Spanish Highways and Byways*, by Katherine Lee Bates; and *The History of Colonization from the Earliest Times to the Present Day*, by Henry C. Morris. They announce further: *Essays in the Monetary History of the United States*, by Charles J. Bullock; *Social Justice*, by Professor W. W. Willoughby; *The History of the Higher Criticism of the New Testament*, by Henry S. Nash; *The Stage Coach and Tavern Days*, by Mrs. Alice Morse Earle; and a novel entitled *Who Goes There?* by B. K. Benson, a new writer of fiction. *A Biography of William Shakespeare*, which Hamilton W. Mabie has been contributing in serial form to the *Outlook*, will be published by the Macmillan Company immediately.

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## NOTES

THE action of President Harris of the school board in abolishing fourteen of the standing committees of that body at the meeting on Wednesday night marks the most progressive reform that has been adopted by the board since the installation of the new superintendent. That it received the unanimous support of the board is gratifying evidence of a desire on the part of the members to reduce the management of the schools to a simple, practical, business-like basis.

The greatest obstacle in the way of any reform in school management in Chicago has been the unwieldy, cumbersome committee system. With eighteen standing committees and occasional "subcommittees" the superintendent was seriously hampered and the educational machinery sometimes completely blocked. In one instance a principalship was kept vacant nine months because of the inability of two committees to agree on a candidate for the position. The business end of the school system was also continually embarrassed by the multiplication of committees with conflicting duties and responsibilities.

This impediment to harmonious and businesslike school management was recognized by the Harper commission and by Dr. Andrews in the plans suggested by them for a reorganization of the system. By the new plan the eighteen committees are cut down to four committees, which, with their membership, are as follows:

*School Management.*—Mr. Brenan, chairman; Mr. Loesch, Mr. Cameron, Mrs. Sherman, Mrs. O'Keeffe, Mr. Keating, Mr. Sexton, Mr. Claussenius, Mr. Dawes, Mr. Stolz, Mr. Christopher and Mr. Meier.

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## NOTES

*Buildings and Grounds.*—Mr. Rogers, chairman; Mr. Downey, Mr. Mark, Mr. Gallagher, Mr. Cameron, Mr. Sexton, Mr. Loesch, Mr. Wolff and Mr. Tilden.

*Finance.*—Mr. Mark, chairman; Mr. Downey, Mr. Rogers, Mr. Walleck and Mr. Rowland.

*Compulsory Education.*—Mr. Christopher, chairman; Mr. Loesch, Mr. Meier, Mrs. O'Keeffe and Mr. Sexton.

The committees appear to have been arranged with judicious reference to the individual talents and capabilities of the members, and in such a way as to simplify and unify the system of school administration. A number of educational committees which had charge of such matters as high schools, manual training, drawing, music, German, physical culture, and normal school are merged into the school management committee, while the finance and building committees are composed of men who have had experience in those lines of service. When the parental school is finished and put in good working order it is probable that the compulsory committee will also be merged into the school management committee.


Having made this important advance away from old and cumbersome methods, the board should firmly resist any propositions to encumber the system again by the creation of "subcommittees" or by the enlargement of the present committees. The elimination of "pull" in the selection of teachers and the simplification of the administrative machinery of the board are long strides in the direction of educational progress that are highly gratifying to the taxpayers of Chicago.—Chicago *Times-Herald*.

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## NOTES

LONGMANS, GREEN & COMPANY invite the attention of teachers to the cheaper edition of Laurie's *Historical Survey of Pre-Christian Education*. It is now published at \$2.

HOUGHTON, MIFFLIN & COMPANY announce that the December number of the Riverside Literature Series will be a collection of four tales by Hawthorne. Part of the value of this collection lies in the fact that three of the stories are called for by the first year's work in the course in English presented by Mr. W. F. Webster at the 1898 meeting of the National Educational Association. This number will be called "The Gentle Boy and Other Stories." The Riverside Art Series will continue its issue, the next number being Sir Joshua Reynolds. This will be followed in December by Murillo. Each book sells at thirty cents, but a special price is made for the whole set.

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THE following provisional announcement in regard to the next meeting of the Department of Superintendence of the National Educational Association has been sent from the president's office:

The meetings will be held in University Hall, in the Fine Arts Building, 203-207 Michigan boulevard, Chicago. Dates of meeting, February 26, 27, 28. Two evening lectures will be arranged for, both given in the same hall. As the size of the hall is limited, admission will be confined to members of the department. President Arthur T. Hadley, of Yale, has been secured to give the lecture on the evening of the 26th. It is planned to devote one session of the meeting to reports of what is actually being done in the subjects of domestic economy and manual training in the elementary schools of several cities where this work has been organized. It is not the purpose to devote this time to theoretical discussion of these subjects, but to reports of what is actually being accomplished, with something of the details of administration in carrying on this work.

One afternoon will be devoted to round-table discussions. The superintendents of the large cities will constitute one group, and the state superintendents another. The remaining members of the department will divide up into probably three groups for the discussion of questions of special interest to superintendents. Rooms will be provided in the Auditorium Hotel to accommodate these groups.

An effort is being made to have reports of two or three new and interesting experiments in educational work, which it is hoped may be of interest to all in attendance.

The Auditorium Hotel will be headquarters. This arrangement will enable those stopping there to attend all meetings of the department without going outside the building. The usual reduction in railway rates on the certificate plan is assured. Full details will be given as soon as final arrangements are completed.

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MESSRS. HINDS & NOBLE, of New York City, have purchased (from the Burrows Bros. Company) the plates and copyright of well-known 1001 Questions and Answer Books (11 volumes), and will hereafter publish them.

THE OPEN COURT PUBLISHING COMPANY of Chicago announces the publication of an interesting book called *The History of the Devil and the Idea of Evil from the Earliest Times to the Present Day*, by Dr. Paul Carus.

THE *Thought Reader*, Book I, by Maud M. Summers, of the Goethe School, Chicago. This book recognizes the thought as the reality, and the sentence as its outward expression. The material for thought is developed along three lines—action sentences, games, and stories. The Suggestions to Teachers which preface the book explain the method also.

AINSWORTH & COMPANY of Chicago, who have taken over the publications of Mr. J. H. Miller, formerly located at Lincoln, Neb., announce the publication of a very interesting book, entitled *The Diary of a Western Schoolmaster*, by Mr. J. K. Stableton, Superintendent of schools in Charleston, Ill. Those who know Mr. Stableton's excellent work in dealing with boys will be glad to hear that he has put his experiences into book form.

## Books for Teachers

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## NOTES

THE social and material rather than the political growth of the United States, is the motive of *The Expansion of the American People*, by Professor Edwin Erle Sparks, of the University of Chicago. The book describes the movement of the people across the continent, weaving in local history at every point, and showing how all these incidents have led to the making of the union. Routes of migration, means of travel, and increase of communication are given a large space. The book is profusely illustrated with reproductions from photographs of historical places and rare wood-cuts, which the author has spent many years in collecting. It will be published by Scott, Foresman & Company, Chicago.

MISS SARAH ORNE JEWETT has just completed an American historical romance, which will appear as a serial in the *Atlantic Monthly*, beginning in November 1900. Its title is *The Tory Lover*. The romance opens in the rich provincial neighborhood of the Piscataqua River, upon ground familiar to the readers of Miss Jewett's short stories. It is concerned with the early affairs of the Revolution; with the exiled Loyalists, whose adventures afford a new field for historical fiction, and with the fortunes of the frigate "Ranger" on the French and English coasts. Readers who are curious as to literary coincidences may be interested to know that Miss Jewett has been occupied with this story for several years, and that her singularly spirited picture of John Paul Jones, who is one of the heroes of the tale, was composed before the publication of *Richard Carvel*.

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THE success of Mondán's *Sight Translation in German*, now largely used in schools, has encouraged the publishers, D. C. Heath & Co., Boston, to issue another pamphlet, called *Easy Sight Translation*, compiled by Grace L. Deering, teacher of German in the English High School of Cambridge, Mass., and designed to furnish elementary lessons to test the power of the young students over knowledge already acquired. It is adapted for pupils in the latter part of the first year in the study of German.

THE following account of the curriculum of a typical high school in Ontario, Canada, may be of some interest to our readers as a matter of comparative study. The course extends over four years and is able to offer the first year pass work of the university, the ordinary matriculation examination into the university being ordinarily completed at the end of the third year. The subjects for the first year are, Reading, English grammar and rhetoric, English composition, English poetical literature, history of Great Britain and of Canada, geography, arithmetic and mensuration, algebra, object and model drawing, bookkeeping and commercial transactions, all of which are *obligatory*; the following are *optional*: Latin, Greek, French, botany, stenography, perspective drawing, and agriculture. In the second year, reading, English grammar and rhetoric, English composition, English poetical literature, history of Great Britain and of Canada, arithmetic and mensuration, algebra and geometry are *obligatory*, while Latin, Greek, French, German, physics, writing, bookkeeping, commercial transactions, and stenography are *optional*.

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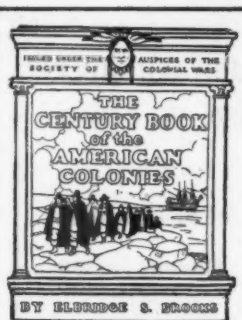
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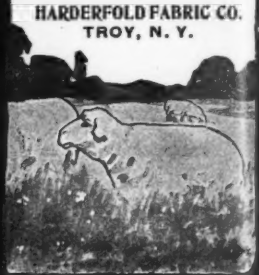
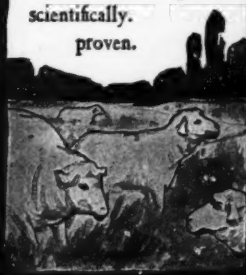
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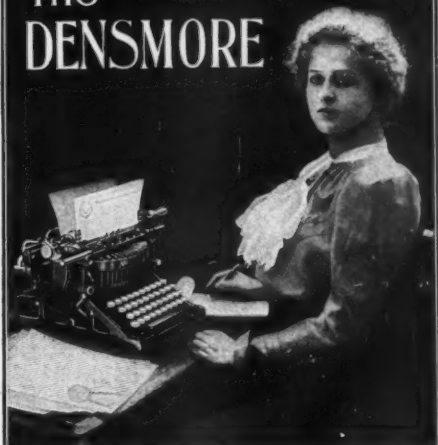


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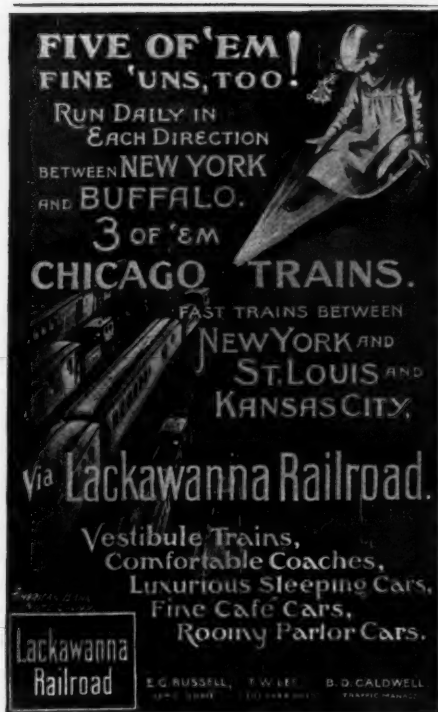
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